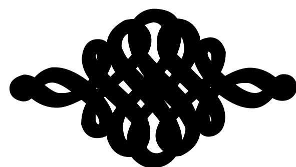
The Book of Wealth



Achievements of Civilization

An inquiry into the nature and distribution of the world's resources and riches, and a history of the origin and influence of property, its possession, accumulation, and disposition in all ages and among all nations, as a factor in human accomplishment, an agency of human refinement, and in the evolution of civilization from the earliest to the present era.

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About The Book of Wealth

The Book of Wealth is a much sought-after book written by Hubert Howe Bancroft, the first volume was published in 1896. The book details the wealth of historic figures and dynasties dating from ancient times up to 1896. It was written to be the companion book to *The Book of the Fair* and took about six years to complete.

Four hundred copies total copies were printed. There were 150 copies the first edition (called “Cygne Noir”, or “Black Swan”) and these sold for $2,500 (or about $89,000 in today’s dollars). Each copy of the first edition was signed by Mr. Bancroft. The second edition (called "Fin de Siècle", or "End of Century) consisted of 250 copies and sold for $1,000 (or about $33,000 today). Note that in my research I have also read reports that the second edition consisted of 950 copies, making the total copies in print to be 1000.

The books were printed in Chicago and are 17" x 22", bound in heavy golden silk, lined with white decorative fabric, and contain about 3,000 images consisting of original watercolors and engravings. The book also contained 100 paintings by popular artist such as Thomas Moran, G. H. McCord, W. Granville Smith, C. Y. Turner, C. A. Vanderhoff, E. Benvenuto. The cover of each section of the first edition displayed an original water-color by a well-known artist. The styling is very similar to *The Book of the Fair*.

The books are divided into ten volumes (or sections), twenty-nine chapters, and contain a total of 1,000 pages. The book starts by detailing the nations of antiquity, starting with the oldest, and then moving to the next, and the next, until it finishes with the United States.

There are sites selling *The Book of Wealth* in PDF format for $25, $50, and even more. Although I offer the book online for free, I have chosen to charge a small amount for this eBook for several reasons:

1. The time it took to convert the book to text.
2. The time it took to assemble the website (achievementsofcivilization.com).
3. The time it took to assemble this eBook.
4. The cost of hosting the site at achievementsofcivilization.com.

Some sites that are selling the book claim that it holds the "secrets" to wealth and that by purchasing it, you too will know these "secrets". There are also "gurus" who rely heavily on this book as their source of "wisdom". Unless I'm missing something (and I'm not), these claims are false. The book contains no ancient secrets or advanced wisdom and will not guide you into riches. It is simply a history book and nothing more. Bancroft was a historian: he wrote history. If you want guidance on gaining riches, you would be better served by searching elsewhere.

About Hubert Howe Bancroft

Hubert Howe Bancroft was an American historian and publisher. He was born in Granville, Ohio on May 5th, 1832 to abolitionist, Azariah Ashley Bancroft and Lucy Howe Bancroft. His childhood home was a stop on the Underground Railroad and is now a dormitory at the Denison University in Granville.

He was married twice, his first marriage to Emily Ketchum in 1859 (died in 1869) and his second marriage to Matilda Coley Griffing. In all, he had five children.

His career began in Buffalo, New York, as a clerk in his brother-in-law, George H. Derby's, bookstore. In 1852, he traveled to San Francisco to setup a West Coast shop for the store. The book store eventually grew into a publishing house that supplied texts for schools and printing labels for cans.

He devoted himself entirely to writing and publishing works of history. He is said to have collected over 45,000 texts of history including maps, manuscripts, newspapers, and oral dictations that covered all areas of history although his focus seemed to be American history. Even in The Book of Wealth, you will see that the largest chapters are those of America. He employed six people for ten years to index his collected works. You'll find some of his works for sale below.

His death came in 1918 in Walnut Creek, California after being struck by a streetcar. He is buried in Cypress Lawn Memorial Park in Colma, California in section L, lot 27.

Some notable landmarks bearing his name:

- The Bancroft Library at UC Berkeley
- The Ruth Bancroft Garden in Contra Costa County, California
- The Bancroft Ranch House Museum in San Diego, California

This is a short biography on Bancroft and much of the information was taken from his Wikipedia page and The Bancroft Library at UC Berkeley.

About This eBook

The text for this eBook was obtained by using OCR (Optical Character Recognition) software and is not perfect. I have "lightly" proofread the text and most of the spellings that were correct in 1898 but would be incorrect today have been changed from the original text. As an example, the Greek characters Æ have been changed to Ae and Œ has been changed to Oe. I have also changed spellings of cities that were spelled different then as well as miscellaneous words such as Mediaeval have been changed to their more accepted spelling today. If you find an error in this eBook, please go to **www.achievementsofcivilization.com** and use the contact form to report the error.

I have not edited any of the content of the book. In it, you will find some rude and racist comments. As an example, in Chapter 26: Southern Sates, you will find the comment: "the Negro as a rule is by nature lazy and improvident." There are a few other comments similar to this about other races or nationalities in the book.

I have slightly changed the chapter layout of the book. In the original format, the chapters on Art and Architecture were mixed in throughout the chapters on the United States. I have moved all of the Art and Architecture chapters to their own section.

The original artwork has not been included in this eBook.

Preface

Companion and consort to The Book of the Fair is this Book of Wealth, one marking the progress and recording the achievements of the human race as exemplified in the Columbian Exposition, the other unfolding the motive power by which they have been accomplished. In the Exposition of 1893 were displayed in brilliant array, as in an enchanting dream, specimens of all the greatest and best that man has thus far wrought out for himself; and in this connection in the study of this display is ever-increasing profit and delight. In this connection, an inquiry into the creation and concentration of power and property, coeval and co-existent with progress, and without which accumulation the world and its belongings would be little other than a primeval wilderness, seems eminently fitting as the final years of the century are closing upon us. With gratification as vivid as that with which were witnessed the highest results of human endeavor may we now pass in review, from first to last, throughout all ages and among all nations, the origin, influence, and operation of a mighty force which has wrought inestimable benefits to the human race.

Wealth in its nobler aspect is not an unworthy theme. There is nothing desirable or honorable in penury; nothing praiseworthy or attractive in want and dependence. Indigence leads not to intellectual culture or to a lofty standard of morality. Purity is not the offspring of poverty, but comes of that cleanliness of soul which is akin to godliness. If, as is written, it is hard for the rich man to enter the kingdom of heaven, it may be a still more difficult task for the poor man. If the love of money is the root of all evil, the enjoyment and proper use of money, not for itself but for what it brings, is among God's choicest blessings. Riches in the main tend toward good: poverty is the emblem, and too often the cause of ills.

The term wealth is relative, having a widely different application in different times and places. Originally the word signified weal or well-being, and was applied to eternal as well as to temporal welfare; later it was used in the sense of large possessions, or of what seemed large to those who had little. Wealth pre-supposes something more than food, raiment, and shelter; there is the gratification, the position, and prestige it affords to the owner, with a certain mental serenity and satisfaction superior by far to merely physical comfort, which may be purchased, all that the world has to give, at a hundredth part of the rich man's income. The desire for a competency in regard to this world's goods lies at the root of all ambition, and without ambition, without aspirations, life is not worth the living. Honor and fame are never made sweeter by the presence of poverty; love and duty must have bread to eat; learning and culture have their necessities; the arts no less than the industries require sustenance. Most noble of all is independence, but independence cuts a sorry figure apart from some provision against destitution. Old age comes on apace, and old age and poverty, though often united, are not agreeable companions.

The gods delight in power, and on earth riches are one of the embodiments of power, intellectual or physical, at some time exercised by the possessor or his predecessors. As intellect withdraws itself from animalism, it requires support, and this is better funded in some form than left to chance provision. Like steam and electricity, wealth is a vital force, and one of the greatest of forces, because in a measure it dominates everywhere, exercising an influence on mind and matter, and governing in

moral as well as in social and material things. In the wealth of the world we behold the accumulated power of civilization, gathered and garnered since the dawn of human intelligence-the measure of human progress and possibility.

The moving force called capital, the basis and impulse to all industry, is for the most part what may be termed stored labor, reserved from consumption to be used in facilitating further labor and for the creation of further capital. Intellectual culture, increase of knowledge, and the refinement of manners which follow in their train are among the chief concerns of progressive man. and these could not exist without wealth, for where there are no storehouses of wealth there can be no storehouses of knowledge.

Men long for wealth; why should they not? Why should they not desire money as well as learning love, health, honor, or other blessings? If riches are a good thing, if they lead to enjoyment, power, independence, satisfying first the physical and then the intellectual well-being, how can the love of them be evil, unless it develops into greed, when it becomes detestable, just as any good may become detestable when carried to an extreme? Why then apply the term greed only to the love of worldly possessions, which in one form or other is a principle inherent in the human race? The desire for riches is by no means the sordid craving that some would have us believe; and here it may be said that if Mammon's votaries are as numerous as ever, there are fewer of those who make pretense of spurning the pursuit of wealth, and while loving it affect to despise it. However contemptuously men of letters, science, and art may pretend to regard what they term the Philistinism of wealth, there is ever present in these, as in all others, the preponderating influence of "Believe not much," said Bacon, "them that seem to despise riches.

If in some instances the desire for riches develops into avarice, this detracts not from the laudable aspiration for independence. The miser is not the friend but the enemy of wealth, since riches have no actual value save in their use, and merely to hoard is a crime against property and progress no less than against society. Not he who lays away, but he who spends freely and judiciously, is respected for his wealth, with the power and position which it brings; for money unemployed tends not to wealth but to poverty. Nor is there here any plea for the spendthrift, who squanders the inheritance earned by the toil of others, who willfully throws away what might be of so much benefit to himself and his fellow men.

The subject of wealth is treated in this work in historic rather than in scientific vein. It is no part of the author s purpose to enter the domain of political economy, or to discuss the various theories of labor, capital, values, exchange, and the rest. Economists of the present day are even less satisfied as to the fundamental laws of their science than were those of the days of John Stuart Mill. Not only are values ever changing in adapting themselves to changing conditions, but standards and measurements of value lose their force and significance when times and places are compared one with another. Fashion and caprice have much to do with it, as well as questions of utility, of abundance and scarcity, of supply and demand. Nor does this remark apply only to the present age; for just as to the millionaire his marble palace represents good value for the money, so to a Pharaoh a pyramid when finished was worth to him its cost. It is the work of economists, among whom since the time of Adam Smith there have been many sound logicians and able exponents, to explain the nature of wealth, tell us what it is, and expound the laws of its incomings and out-goings. But the economists themselves do not find their work always and altogether easy; for wealth springs from a variety of causes, and acts and is

acted upon by a multitude of conditions. Science however, like theology, is freeing itself from superstition; and in economic science the fallacy has long since been exploded that money alone is wealth, since indeed it is about the only thing that men handle which is not wealth.

The Ricardo school of economists hold that utility is essential to value; possessing which, commodities derive their exchangeable worth from scarcity and the labor required to obtain them. Senior, on the contrary, who declares Ricardo to be the most incorrect writer who ever attained to philosophical eminence," defines wealth, or objects of value, as those things which are transferable, limited in supply, and productive of pleasure or preventive of pain. Jevons says that prevailing opinion makes labor the origin of value, but for himself he believes that value depends upon utility. Labor often develops or determines value but of what value is labor in the absence of utility? Other teachers assert that wealth means value, and value power, which brings us back to the old maxim spoken many times before and since the days of Hobbes, that wealth is power, a proposition somewhat qualified by modern economists, who define wealth as power in exchange; that to be wealth, whatever one possesses must be something which can be exchanged.

As in all things else, there is less pleasure in the possession than in the pursuit and anticipation of wealth; in the toiling for it, the self-denials, the constant sacrifice of other pleasures, the cheerful acceptance of deprivation that greater privation may be escaped. Hearn opens his treatise on plutology with the nature of wants impelling man to exertion. Without want there is no gratification; without pain there is no pleasure; without poverty no relative wealth. The unequal distribution of wealth is complained of by a certain class; but did it ever occur to these persons that unless property were unequally distributed there could be no such thing as wealth, and that if equal distribution were made without the possibility of unmaking it by men of superior ability and energy, material progress would be at an end? Nothing great can be accomplished by the unaided of forts of a single person, and the help of others must be purchased in one way or another.

Wealth as a rule implies work at some period, usually in the years gone by, work by the wage-earner or the wealth-owner, who toil with hand or head. Labor has been called a curse but is in reality a blessing the greatest of all civilizing agencies; and for this at least let us be thankful that there is always the work of the world to be done and that it was never so great as in these closing years of the nineteenth century.

Section One

Chapter the First: Chaldea, Babylonia, Assyria, and Persia

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The children of Babel they were as birds, and the bird-catcher thou wert he! Thou takest them in the net thou enclosest them, thou, decimatest, even Uruk, the town of the priestesses, and of the sacred courtesans. Gilgamesh saw the abyss, saw all that was kept secret and hidden, and made known the same to men even all that had come to pass before the deluge. This secret he tells to thee. There is a plant with flower like the hawthorn's, and whose thorns prick like the viper. Lay thine hand hold of the plant, break from it a branch and bear it with thee, and it will secure thee eternal youth. This is the plant of renovation; eat of it and the old become young; eat of it and repossess the vigor of thy youth. Of what use is renewed strength? And why rejoiceth my heart in my return to life? Leave me alone with those who come and go.

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That with the creation of the world provision was made for the material well-being of those who were to inherit it, all systems of cosmogony are agreed. In the earliest of traditional theories may be traced the from the laboratories footsteps of wealth-producing powers, of nature's forces to the metal-bearing veins of the mountains and the caverned gems of ocean.

Read the story of Izdubar. Before the gods, before Lakhamu or Kishar, was Chaos. Above, where heaven is, was nothing, and nothing was below. All lay void in the depths of Apsu, the abyss, and Tiamat, the billowy sea, with intermingling elements, where was the germ of life but not life. When from these elements divine beings arose, after unnumbered eons, they were at first without form or personality. But in time were born Anu, god of the firmament, sunlit by day and fretted with stars by night; Inlil, lord of the earth, and Ramman, sovereign of the air, each evolving from himself a spouse from whom descendants followed, peopling the earth.

From the sun-god Shamash cometh the light which dissolves the darkness, and out of the amorphous develop shape and place. In the east, under a sky of silver, is the holy mountain, whose top is in the heavens; on the plains below are fruits and flowers, whatever is good for man; and these in reward for his piety.

And Shamash said, "They shall clothe thee in royal robes; they shall make thee great; they shall enrich thee, and the kings of the earth shall- kiss thy feet." And thus the goddess Ishtar. "Izdubar, be my husband, and I will be thy wife; pledge thy troth to me. Thou shalt drive a chariot of gold and precious stones; thy days shall be marked; kings and princes shall be subject to thee; they shall bring thee tribute from mountain and valley; thy flocks shall multiply; thy mules shall be fleet, and thine oxen strong under the yoke."

But he would not. And they sent against him the sacred bull, whom he slew. Then Ishtar cursed him.

In other systems of cosmogony, from that which Hesiod taught to that in which the New Zealanders believe, heaven and earth are the first of the gods, the authors of all things created. Thus, procreated by heavenly powers, man appears on the scene, though somewhat ill-fitting into place, being at once too great and too small; too great for his inexorable environment and narrowly restricted sphere, too small for his self-consciousness and his longing for immortality. In vain does he seek to fathom the unfathomable, to reach after the unattainable, inventing for himself beings supernal and infernal. Deities dance through his brain, angels descending from the sky and demons rising from the earth, as presently he finds himself afloat upon a sea of creeds and contentions. Yet all agree that after much tribulation there cometh a period of rest for the soul; that from the gods come the good things of life, with the capacity to enjoy; that from the gods come also poverty, pestilence, and the lightning which destroyeth. In the heavens the gods fight for supremacy; on earth men fight for riches. Yet for all there is enough; enough of air and sunshine, of food and drink and raiment; nor is there aught that can be increased or bettered by contention.

When, emerging from their primitive condition, men tired of roaming, they began to prepare for themselves fixed habitations, substituting for tents of skin, dwellings of sticks and mud. Then learning how to make bricks and hew stone, they built unto themselves cities, and settling therein the leaders availed themselves more and more of their superior craft and skill. Property gradually fell into the hands of the strongest and most able; pride of possession increased, and as wealth accumulated it was employed in the acquisition of further wealth. Thus it is that the existence of a community or of a

nation begins almost simultaneously with the creation of wealth. And so with the people whom we find settled in the land of Shumir, or southern Chaldea, the Shinar of the Hebrews, where the biblical record of the human race for perhaps a thousand years is condensed into a single sentence—"And it came to pass, as they journeyed in the east, that they found a plain in the land of Shinar, and they dwelt there."

In tracing the origin and influence of wealth let us begin therefore with Chaldea, though apart from scriptural story there is little that points to Chaldea as the country where man first appears as an element in the procession of things created. In all the legends of the kings of Ur and Accad we search in vain for the name of Chaldea and if used by Berosus, priest of Bel, who translated into Greek the ancient records of his nation it is in a geographical rather than an ethnological sense. Ten kings, says Berosus, reigned before the deluge for some 430,000 years, the first one being Alorus of Babylon and the last Sisuthrus the Chaldean Noah and hero of the flood who after ruling for well nigh 65,000 years lingered a few thousand years longer, and was gathered to his father's at a ripe old age. Of the eight dynasties which followed, four were Chaldean, the last including six monarchs whose united reign amounted but to four-score years and seven; for now we are in the sixth century of the pre-Christian era, and tradition is giving place to history. In the following century Herodotus is sojourning in Babylon, then under Persian domination, and adds his somewhat doubtful testimony to that of Berosus, whose works have perished, only a few fragments coming down to us in the form of quotations by later authorities, as in the writings of Eusebius, though within recent years collected in more systematic form. It was not until the ninth century that the Caldai, or Chaldeans, a somewhat insignificant tribe dwelling amid the marshes of the Persian Gulf, moved slowly northward until they became masters of the country which later bore their name.

Whence they came we know not; one thing at least appears from recently discovered inscriptions, that they belonged to none of the Noachian races as classified in the book of Genesis, but probably to one much older, and to one which escaped the flood. Yet, like many other nations they had their own story of a local deluge, their own theory of creation, with ages of lengthy living, as we have seen, far surpassing Hebraic tradition. Mighty warriors also they had and mighty hunters, as Urukh, the first wealthy Chaldean, so far as is known, by whom were built the great temple at Urukh, or Erech, now the mound of Warka, and the fortress of Ur, or Uru, his capital city then probably a seaport on the Persian gulf, near the mouth of the Euphrates, and later the southern seat of Chaldean learning. Of the latter, now some 150 miles inland, the buildings were of the rudest workmanship-sun-dried bricks uncemented and of irregular shape and size with inscriptions in rough, bold characters. Yet on the temple-towers of Ur we find the signet-cylinder of Urukh, that is to say, "light of the sun", styling himself king of Ur and Accad, engraved with figures by no means devoid of art.

It was a fair and fertile land, this land of Shumir, a rich alluvial plain in the low-lying region between the Tigris and Euphrates with soil as bountiful as the banks of Nile. "Of all countries that we know," says Herodotus, "there is none so fruitful in grain. It makes no pretension indeed of producing the fig, the olive, the vine, or any other tree or plant of the kind; but in grain it is so fruitful as to yield commonly two hundred fold, and when the yield is at the highest, even three hundred fold. The blade of the wheat plant and of the barley plant is often four fingers in breadth. As for millet and sesame I shall not say as to the height they grow, though within my own knowledge; for what I have already written concerning the fruitfulness of Babylonia must seem incredible to those who have not visited the country. By Theophrastus, the disciple and successor of Aristotle, who wrote about a century later,

it is stated that the grain fields of Chaldca and Babylonia were mown twice a year, and that farm animals were turned into the stubble to keep down the luxuriance of the growth; for otherwise the ear would not kernel. By Pliny a similar statement is made, and Berosus declares that wheat, barley, sesame, with many kinds of fruit grew wild in portions of Chaldea.

Brick-clay lay ready to hand, and of metals there were copper and iron, the latter serving, as did gold, for ornamental purposes. Stone, of which there was little, and that probably imported, was used mainly for carving and sculpture, some recently discovered fragments of the statue of an Accadian king being fashioned of a hard black granite. In the temples there is no trace of skilled architectural design; they were merely masses of brickwork, rising in tiers or stages, all differently colored, and each smaller than the one below, with a chamber at the top which served at once as shrine and observatory; for the Chaldeans were renowned astronomers, and of their system some records have come down to us through the translations of Berosus. A noticeable feature is the number and size of the cemeteries, especially the necropolis of Erech, giving rise to the supposition that the soil of Chaldea was regarded as sacred ground by neighboring countries, whose dead were taken there for burial in countless numbers.

Such a country was well adapted for the seat of primeval civilization, for a nursery of nations which afterward grew to greatness, as did the Hebrews and Assyrians. With a soil and climate that needed only labor and a settled order of things to produce all that man required, where, as in Egypt, moderate toil was requited with large returns, and with other advantages tending to wealth and culture, here it was but natural that the great civilizing power of the ancient world should make its home. As to the origin and development of this civilization, much has been brought to light within recent years through the deciphering of Babylonian and Assyrian inscriptions, much as to social conditions, as to industries and arts, science and literature.

In Accadian vases and lamps is remarkable symmetry of form, and though for the most part made by hand, in some there are traces of the potter s wheel. In the making of pottery they were unquestionably skilled, and bas-reliefs in terra-cotta have been unearthed at Larsam, where was the House of the Sun. In the cutting and carving of gems they were also expert, some of the figures being so minute as to suggest the use of the magnifying glass. At Ur, now Mugheir, a leaden pipe has been discovered; bowls of bronze are numerous, especially in the tombs, and for the most part deftly fashioned; but except in the making of golden ornaments the Chaldeans were not adepts in metallurgic art. Stone implements were still in use, though utensils and weapons of bronze and copper were also plentiful. To Gibil, the God of Fire the following was one of many invocations: “It is thou who mixest tin and copper; it is thou who purifiest silver and gold.” Since in the making of bronze, in which form the metals were first employed, the quality of the product depends on the proper admixture of the ingredients, it was but natural that the fire god should be held in high esteem.

To the Chaldeans coined money was unknown, business transactions being conducted by barter, or by the exchange of commodities for a given quantity of precious metals. Taxes were also paid in gold or silver, in lead or copper, fashioned into bars or ornaments; but more often in grain or fruit, in wine or oil, in slaves or live-stock. Administrators appointed for the various industries gathered the tribute into storehouses, reserving one portion for themselves, another for those employed on public works, and a third for the king, the remainder swelling the reserve that was held in the treasury, to be used only in cases of urgent necessity. Though tradesmen were plentiful, they were seldom rich, most of the

shopkeepers preparing their own goods for sale, with the assistance of slaves or apprentices. Each artisan trained his children in his special craft, and these again instructed theirs, thus forming hereditary guilds, or tribes as they were termed, as of carpenters, brick makers, and workers in stone and metal.

Rents were high in Chaldean cities, and in addition the cost of repairs fell on the lessee, leases being usually granted only for a twelve month, but of vacant land for a term of years, at the end of which all improvements reverted to the landlord. As to structures in the wealthier of these cities, it is probable that they differed but little from those which are found at the present day in regions but little affected by European civilization. In Uruk the remains of houses of the better class show that they were made of brick cemented with bitumen with low arched doorways, and lighted by small openings in the upper portion of the walls. Within were small rectangular chambers, their flat or vaulted roofs supported by trunks of trees. The furniture was similar to that of the royal palaces already described. In the courtyard was an oven for baking bread and meats, with flat stones for grinding corn, the kitchen utensils consisting of earthen vessels dishes and plates, wine and water jars, and a few large pans of copper.

The dwellings of the rich were surrounded with gardens and somewhat removed from the squalid residence and business centers, with their huts of clay and reeds, their narrow, winding, refuse-littered streets, their muddy lanes and alleys, where in crowded shops and bazaars each trade had its special quarter, while towering far above this nondescript collection of buildings were temples crowned with gilded ziggurats.

The royal palaces of Chaldea, like those of the earlier Pharaohs, served also as citadels, with walls substantial enough to withstand a siege. They were built on artificial mounds of brick for the one at Lagash, for instance, which was occupied at least until the opening of the Christian era, rising 40 feet above the plain, and accessible only by a steep and narrow staircase. It was a squat and cumbersome structure, two stories in height, and with little attempt at decoration, though this was common enough in more pretentious edifices. Three of the rooms were used as a storehouse or magazine; others were for officials, and the monarch and his household contented themselves with five or six chambers at most. They were lighted only from the door and from a small hole cut in the ceiling, and the walls were covered with plaster, on which, as on the panels, were rudely painted scenes from mythology or civil life. Even the king s apartments were scantily furnished-four-legged stools, wooden stands for lamps and wooden chests for linen and wearing apparel, mats of plaited osiers, and low beds with the thinnest of mattresses, the only articles suggestive of luxury being a few arm-chairs with feet resembling lions' claws, probably imported from Egypt. In other palaces, however, as in that of Uruk, was more of ornamentation, though in none were the costly draperies, the mosaic panels and pavements, and the woodwork of cedar inlaid with gold so frequently traced in the ruins of Chaldean temples. There was also a noble class among the Chaldees, or at least a wealthy aristocracy, standing almost in the same relation to the monarch as did the great lords whom we read of in the days of the Pharaohs, while in both are suggested the feudal system of the middle ages. Their possessions, as well as their titles, if such they had, were bestowed as a reward for military services, the former often including not only gold, grain, cattle, and slaves, but conquered towns and provinces. Slaves were numerous and widely distributed, nearly all families having one or more; for a male could be purchased for ten shekels of silver and a female for less than half that amount. While unrecognized by law and counted as mere cattle by the head, they were for the most part kindly treated. They could

marry and rear a family, apprentice their children, and were even established in business by their owners, who allowed them a share of the profits. They were employed as clerks and stewards, as overseers, superintendents, and scribes, the last of these occupations being held in lighter esteem than among the Egyptians. Not infrequently they were the confidential servants of the household. They could accumulate the means with which to purchase their freedom, and this was often bestowed on them as a reward for faithful service, where after they enjoyed all the rights of citizenship. Thus in the treatment of their bondsmen the Chaldeans appear in favorable contrast with other nations of antiquity.

By early writers the name of Babylonia is commonly applied to the land of Shumir, more so even than that of Chaldea, while in speaking of the national religion either word is used, and at times the term Chaldeo-Babylonion; nor is this to be wondered at, considering that the two countries were contiguous, the distance from Ur of the Chaldees to Babylon, or as in the Semitic, Babili, that is to say "the gate of the gods," not exceeding 50 or 60 leagues. No less fertile was Babylonia than the plain of Shinar, with which in scripture it is identified, its fields of waving grain interspersed with pleasant gardens and groves of palms, while in the metropolis were crowded marts of commerce with merchants hurrying to and fro; for here was largely concentered the wealth of the ancient world. And behold it now! "The hindermost of the nations, a wilderness, a dry land, and a desert, a possession for the bittern and pools of water," is today this primeval region of corn and oil and wine, its once fertile vales over spread with moldering debris, and the channel of its irrigating streams choked with the drifting sands.

Many were the names applied to ancient Babylon, among them Gan-Duniyas, or the fortress of Duniyas, whence, as Rawlinson suggests, the etymology of the scriptural Gan-Eden or Garden of Eden. For many centuries it ranked lowest among the four cities which formed the metropolis of Shumar, and it was not until its conquest by Khammuragas, a Cassite or Elamite prince, that it became the capital city, never afterward losing its supremacy except under Assyrian domination. By Hammurabi, who drove out the Elamite invaders. Accad and Shumir, with their time-honored cities and temples, were gathered into a united kingdom with Babylon at its head. Many temples he restored and many new ones he built, devoting himself also to public works of utility, with special regard to agricultural development. Inundations were frequent during the earlier part of his reign, and as a remedy was constructed the canal which bore his name, and later was termed the Royal Canal of Babylon, whence numberless branches spread throughout the plain their fertilizing moisture. No boastful language is that which appears on the inscription: "I have caused to be dug the Nahr-Hammurabi, a benediction for the people of Shumir and Accad. I have changed desert plains into well watered lands. I have given them fertility and made them the abode of happiness. It was the greatest undertaking of the age, and even today would not be lightly esteemed as an engineering feat.

After Hammurabi reigned his son, and then came further Elamite irruptions, followed by Assyrian supremacy, and this again by Persian domination. In the heavy tribute exacted by Persian monarchs, amounting to some $1,200,000 a year in silver with a much larger contribution in kind, is one of the strongest evidences of wealth. The riches accumulated by Persian satraps were enormous, larger even than in the richest provinces allotted to Roman pro-consuls. Herodotus, for instance, mentions a certain viceroy or governor who collected from his satrapy nearly two bushels of silver a day. As a further proof of the fertility of the soil may be mentioned the fear of Artaxerxes Mnemon after the

battle of Cunaxa, that the Greeks would settle in the valley of the Tigris where, as Xenophon relates, could be produced with little labor all that was needed for the wants of man.

It was in the days of Nebuchadnezzar and his immediate successors that Babylon developed into the vast metropolis whose remains are still among the wonders of the age, although but a portion of the original ruins, which long were used as a quarry for the building of other towns. Several times plundered by Sargon and razed to the ground by Sennacherib, it became under this monarch the queen city of western Asia and of the world. His wars at an end some time remained to him before his reason was overthrown, and this he used in completing the great works begun during his many years of conquest. The spoils of war afforded abundant means and captives from many nations—Phoenicians, Jews, Egyptians, Syrians, Moabitcs—were settled by thousands in the neighborhood of Babylon, thus furnishing a plentiful supply of labor, the cost of which was merely a scanty dole of food.

By those who came after him the city was further enlarged and beautified, especially by Nabu-nahid, who probably constructed the great walls and hydraulic works ascribed by Herodotus to Queen Nitocris. The latter, as is related, built for herself a tomb aloft above one of the principal gates of the city, and upon it engraved the following inscription: "If any of my successors, the monarchs of Babylon, shall be in need of money, let him open this sepulcher and take whatsoever he requires. But let him beware of opening it except in case of necessity, for then shall it turn to his disadvantage." The tomb was not disturbed until Darius ascended the throne; but to him it appeared as a grievance that the wealth deposited therein should remain without an owner. Opening the sepulcher, he found there—of treasure indeed, nothing, but close to the corpse an inscription to this effect: "If thou hadst not been over greedy for lucre, over covetous of riches, thou wouldst not have molested the depository of the dead.

It was about the year 518 that Darius entered Babylon after quelling a revolt of the Babylonians, for the province was one of the many which were his by right of inheritance. But while one of the ablest of Persian generals and of Persian rulers, we cannot accept his own statement as to his easy victory; “that he won a great battle at Zanzana on the Euphrates, and pursuing the pretender to Babylon, took the city and slew him there." Unfortunately for the monarch's pride, there is sufficient evidence that the resistance was one and desperate, lasting for some twenty months, and then perhaps ended only by treachery. During this time so fierce was the famine that as Herodotus relates, in order to reduce the number of people to be fed, all the women were put to death, except for the mother of each household and one to prepare such food as could be procured.

The Babylonians had profited doubtless by their experience a score of years before, when during the days of Belshazzar, while city and palace were given up to revelry as described in the Book of Daniel, their capital was taken by Cyrus the elder, who reigned there in state almost until the time of his death. In his Cyropaedia, Zenophon thus in part describes a royal procession to the sacred enclosures, soon after the capture of Babylon and while in this account of Cyrus' younger days truth is often sacrificed to effect, it is probable that the description is not unworthy of credit. “Now we will relate how Cyrus for the first time marched out of his palace; for the majesty of this procession seems to me to have been one of those pageants that made his government not liable to contempt. First, therefore, before he made this procession, he called unto him all those, both Persians and others, that were

possessed of commands, and distributed to them Median robes, and it was then that the Persians first put on the Median robe.

This done, he told them that he intended to march in procession to those portions of ground that had been chosen and set apart for the gods, and to make a sacrifice accompanied by them. “Attend therefore at the gates,” he said,” before the rising of the sun, and form yourselves as orders shall be given you."

On the following morning all things were in readiness. There were ranks of people on each side of the way, and within these ranks none but men of great dignity were allowed to come. There stood first before the gates 4,000 guards, drawn up four in front; 2,000 on each side of the gates, with chariots arranged in the same manner. When the gates of the palace were opened, first there were led a number of bulls, very beautiful beasts, four abreast, devoted to Jove and to such other of the gods as the magi directed. Next there were horses led for sacrifice to the sun. After these came a white chariot, with its perch of gold, adorned with a crown or wreath around it, and sacred to Jove; then a white chariot sacred to the sun, followed by a third chariot, its horses adorned with scarlet and golden trappings, and behind it men bearing a large altar on which was the sacred fire. Presently Cyrus himself appeared wearing a jeweled turban and diadem, a purple robe, and a vest of purple mingled with white, a mixture which no one else was allowed to wear. All the people paid him adoration, and never before had this been done by Persians. When the chariot of Cyrus advanced, 4,000 of the guards marched in front, and the staff officers followed after in rich apparel and with javelins in their hands. Then were led the horses belonging to Cyrus, with bridles of gold and coverings wrought with raised work in stripes; and there were about 200. In the entire procession there were 70,000 or 80,000 horsemen, Persian, Median, Armenian, Hyrcanian, and Caducian, with hundreds of chariots driven four abreast sacrifices. On reaching the sacred enclosures were offered, bulls and horses being burned entire and other victims slain at the direction of the magi. Then came horse-racing, Cyrus himself taking part in the Persian race, and winning an easy victory, or rather being allowed to win it.

On an inscription confirmed by the statement of Berosus is mentioned the boast of Nebuchadnezzar that in fifteen days he built the great wall of Babylon, inclosing a city 42 miles in circumference, according to Ctesias, physician to Artaxerxes Mnemon, and 56 miles as Herodotus would have us believe. Accepting for the moment the estimate of the former, which is confirmed by Strabo and Curtius, this would make the city more than 100 square miles in extent or about four times the size of London. But of this area, probably less than one—eighth was covered with buildings, many of which were three to four stories in height, the remainder consisting largely of gardens, parks, and orchards, with an abundance of vacant land. The outer wall-for there were two while Ctesias speaks of a third—is said to have been 85 feet in width or wide enough for a four-horse chariot to turn, and according to Herodotus 335 feet in height. While this is not impossible, —for in Xenophon s time, some two centuries later, the ruins of the walls of Nineveh with their surmounting towers were still 150 feet high, —we must accept with due allowance the stories of "the father of history," with his well known propensity for exaggeration, his statements, moreover, being largely derived from ciceroni. For materials, bricks were made of the clay dug from the moat on the outer side, and of this must have been used the equivalent of 500,000,000 cubic feet of masonry, or at least three times that number of bricks. The gates were of brass and of these there were 100, with brazen posts and lintels. The banks of the Euphrates, which ran through the heart of the metropolis, were lined with quays, the two portions being connected by a drawbridge supported on piers of stone.

On the eastern bank of the river was the great palace of Nebuchadnezzar, styled the Admiration of Mankind, and of this it was that Daniel wrote, after speaking of the year of grace granted him "to break off his sins by righteousness, and his iniquities by showing mercy to the poor." “At the end of twelve months, continues the prophet, "he walked in the palace of the kingdom of Babylon. The king spake and said, is not this great Babylon that I have built for the house of my kingdom, by the might of my power, and for the honor of my majesty?" But in that same hour, as we read, the destroyer of Jerusalem was driven forth from men to dwell with the beasts of the field to eat from the dust from which he came and after some lucid intervals to return to the dust to which mankind returneth.

The palace was also surrounded with walls, the outer one more than two leagues in circuit as Diodorus relates. Within this space were the famous hanging gardens of Babylon, not least among the seven wonders of the world, constructed it is said, to gratify the monarch's wife, who, wearied of gazing on the flat Babylonian plains, longed for something to remind her of her native Median hills. They were fashioned in a series of arches or terraces supported by pillars, only the top one probably containing flowers and shrubbery, with sparkling fountains and an artificial grove. To Nebuchadnezzar is also attributed the reservoir near Borsippa, a suburb of Babylon on the western side of the Euphrates. It was at least 40 miles square, more than 100 feet in depth, and intended for irrigation purposes, but first to draw off the waters of the river while its bed was being lined with brick. Here also was a temple of Bel, partially erected by one of the ancient monarchs and completed by Nebuchadnezzar. But the great temple of Bel, or Belus, now the mound of Babil, its ruins identified with the tower of Babel also the native name of the city itself—Babylon being used only by the Greeks—was in the metropolis, and this also the monarch repaired and beautified, all the bricks which bear inscriptions being stamped with the legend of Nebuchadnezzar. It was in the form of a pyramid, built in stages, and on its summit was a shrine with a golden image of the god 40 feet high, a golden table of similar size, with ornaments, sacred vessels, and other objects which bore testimony to the wealth of ancient Babylon.

The Babylonians were essentially a religious people, and their architectural monuments were for the most part of a religious character, nearly all the great buildings whose ruins remain being temples, while the inscriptions engraved by their princes, so far as deciphered, relate almost exclusively to the worship of the gods. As to industries and arts, what has been said of the Chaldeans applies also in a measure to their northern neighbors, the history of both being merged at times into one. Especially were they skilled in the manufacture of textile fabrics and pottery, their carpets, cloths, and figured, for instance, raiment being greatly prized. In the Jewish record, it is related how Achan coveted a Babylonish garment and a wedge of gold, found among the ruins of Jericho, and lost his life thereby. In their metal work and engraving of gems are evidences of skill and care. They excelled in painting rather than in sculpture, covering their walls with figures depicted in vermilion, while their love of bright colors is further exemplified in the hanging gardens of Babylon.

The luxury of the Babylonians during the later empire is a favorite theme with writers both sacred and profane. Their young men, says Ezekiel, made themselves "as princes to look at, exceeding in dyed attire upon their heads.” Their dining tables groaned under the burden of gold and silver, and in costliness and wealth of decorations their palaces far exceeded those of all contemporary empires. At the historic banquets of Nebuchadnezzar, music was a recognized accompaniment of the feast, bands of performers entering with the wine and entertaining the guests with concerted pieces. For the most part the performers were women, often as many as 150 in number, some of them singing and others

playing on the pipe, the harp, the psaltery. Many were doubtless Hebrews, as we read in the Psalms, "They that carried us away captive demanded of us a song, saying sing us one of the songs of Zion." Rich perfumes were exhaled from exotic plants, while the glitter of plate, the figured tapestries, and the brilliant robes of the guests added to the attractions of a scene too often marred by excess.

In touching on the annals of Chaldea and Babylon I have spoken in part of those of Assyria; for the history of all the three countries is more or less interwoven. Not only in an historical, but in a geographical and ethnological sense, the entire region lying between the Euphrates and Tigris forms but a single country, and this is fully recognized by the writers of antiquity, especially by Greek historians, who use the word Assyria somewhat vaguely in speaking of the series of empires that succeeded each other in the region between the two great rivers of western Asia. The Hittites, whom Ragozin terms the natural foes of the Assyrians, were the first to suffer from their warlike and ambitious neighbors, Asshur-Uballit conducting expeditions against them early in the fourteenth century. Other expeditions followed, and as booty and increase of population attended each successive conquest, new settlements arose in the vicinity of the ancient capitals of Asshur and Nineveh. By Shalmaneser I was founded, probably in 1300, the city of Kalao, whose ruins Layard unearthed at Nimrud, this also becoming a capital and the favorite residence of Assyrian monarchs. Thus the three cities were separated only by a few miles, and connected as they were by the waters of the Tigris, appeared like the several quarters of a huge metropolis, their palaces and monuments erected by myriads of captives, the cost of whose labor, though little more than a scanty dole of food, representing a fabulous total. It was about this date that Babylon first succumbed to the Assyrian arms as appears on a signet ring bearing the name and titles of the conqueror, Tukulti-nineb, son of Shalmaneser I and conqueror of Kar-Dunyash.

While less fertile than Babylonia, Assyria was larger in size, and not without productive and well-watered valleys and plains. In mineral wealth it far excelled its southern neighbor; for here were iron, copper, and lead; silver and antimony; sulfur, alum, and salt; bitumen, naphtha, and petroleum. It was peopled by an industrious community, one given to the useful arts, and especially to manufactures, in which they had probably no rivals in the ancient world.

Says Rawlinson in his Five Monarchies, speaking of the reign of Asshurizirpal in the ninth century BC, through whose conquests and spoils the empire waxed rich and prosperous: "The metallurgy which produced the swords, sword-sheaths, daggers ear-rings, necklaces, armlets, and bracelets of this period; the coach-building which constructed the chariots; the saddlery which made the harness of the horses; the embroidery which ornamented the robes, all prove that the Assyrians were already a great and luxurious people, that most of the useful arts not only existed among them but were cultivated to the highest pitch, and that in dress, furniture, jewelry, etc., they were not very much behind the moderns."

Engineering was also well understood as, appears in numerous tunnels and aqueducts, and especially in the irrigating canal at Calah, or Nimrud, where Asshurizirpal erected the Northwest palace and its adjacent temples as described by Layard. The ground plan consisted of a large, open court surrounded with long narrow galleries, and with small square chambers opening into each other. In these galleries are long rows of kings, their figures sculptured in the most finished style of Assyrian art with profiles sharply outlined and with remarkable accuracy of delineation. There are also animal sculptures; winged lions and bulls at some of the entrances and elsewhere hunting scenes and scenes of the battle

and the siege. Here in truth is expressed the genius of Nimrud, "the mighty hunter before the Lord," hunter both of men and beasts; for the name of the gods, whether true or false, has ever been invoked, as today it is, to sanctify the despot's cruelty.

Other palaces arose on the platform where now stands the Nimrud mound, each one intended to outdo the others, and all rich in wood carvings, in sculptures, paintings, and gildings, while ziggurats, shrines, and obelisks added to the embellishments of the city, and above all, the lofty temple-tower of Nin, the Assyrian Hercules, gave emphasis to the architectural scheme of these sacred and palatial edifices. In architecture, in the fine arts, and in the application of art to objects of common utility, the Assyrians borrowed largely from the Babylonians, though using instead of brick the building stone which lay ready at hand, with sculptured alabaster for ornamental purposes. In gem cutting they excelled, and in the potters ware unearthed at Nineveh are specimens of ceramic art which rival the Greeks, their lamps especially resembling those which have been found in the tombs of Athens and Syracuse. Their porcelains and colored glass were articles of commerce, the latter with tints that remind us of Venetian ware; in the inlaying of metals they were remarkably expert, and from them the artists of the day have learned the method of covering iron with bronze.

Like the Jews they were essentially a commercial people, their trade, with Nineveh as its center, extending in the seventh century from the coast of Cornwall, where they traded for tin, as did the Phoenicians, eastward to Hindustan, whence came the ivory found at Mugheir, the Ur of the Chaldees. Unlike the Chaldeans, however, their traffic was mainly overland, at least in the earlier period; for it is not until the reign of Sennacherib that mention is made of a fleet. Interest on money was three or four per cent per annum, the latter being the maximum rate and probably fixed by law. Payments were usually in bars of metal, but were also made in kind, and for small amounts in coined money, of which a few specimens still remain. Conquest added largely to the wealth of the Assyrians, which was gathered from various countries. On a black marble obelisk, discovered by Layard, setting forth the seven and twenty campaigns of Shalmaneser II, who in the year 585 succeeded his father, Asshurizirpal, are bas-reliefs representing the king as receiving the tribute of foreign lands, most of it consisting of gold silver and copper in bars and cubes, of goblets fabrics and elephants' tusks. There were also animals of many species; horses and Bactrian camels, the antelope and stag, the lion and wild bull, the monkey and baboon, and "strangest of all" says Rawlinson, "the rhinoceros and the elephant." By Sennacherib it is related that in a single foray he gathered from the tribes of the Euphrates 7,200 horses, 5,230 camels, 11,000 mules, 120,000 oxen, and 800,000 sheep. Other kings speak of their captured animals as "countless as the stars of heaven," and of numberless vessels of gold and silver from the temples of many nations.

In and around Nineveh, long the political and commercial center of Asia, was largely gathered the wealth of Assyria, its neighborhood being rich in mines of iron, copper and lead though the gold so lavishly displayed in Assyrian palaces came either from tribute or from distant mountain regions. Second only to the monumental marvels of the Nile was the architectural grandeur of the cities on the upper Tigris, and especially of the metropolis. The latter fronted three miles on the river, and was surrounded by an inner line of fortifications eight miles in circumference, —this probably for the royal quarter, and with numerous enclosures for suburbs or adjacent towns. We cannot, however, accept the statement of Sennacherib that to make the circuit of Nineveh was a three days journey, nor that of Diodorus who describes it as a city with 135 square miles of area. More accurate is the estimate of the historian placing the height of its walls at 100 feet, with towers twice that height, wide enough for

three chariots to drive abreast, and with colossal figures at the entrances elaborately carved in stone. The wails were huge embankments of earth, faced with hewn limestone, and the towers of sun-dried brick. Within them and in the outskirts were in the days of Jonah 600.000 people, the temples, palaces, baths, and artificial hills, each of the last requiring the labor of 10,000 men for three years, attesting to the wealth and luxury of the inhabitants. But property was concentrated in the hands of a few, the common people being trained as with other nations of antiquity to administer to the wants of the rich. Mainly by the enforced labor of captives was built the palace of Sennacherib, covering eight acres, and raised on a foundation 80 feet above the ground.

Let us imagine ourselves in this old world metropolis, about the middle of the seventh century, when, during the reign of Asshurbanipal, presently to be mentioned, Nineveh was in the zenith of her glory, all unconscious that her fall was so near at hand. It is a beautiful spring morning, and the surrounding plain is covered with luxuriant but short-lived vegetation, resplendent beneath the bright rays of the orient sun. Here and there are groves of oleander and myrtle, and soft vernal airs, caressing with velvet touch, are filled with the perfume of flowers and the rich odor of citron trees. Entering the city gates, above which lofty towers cast their waning shadows across the windowless walls of houses surmounted by cone-shaped roofs, we find the people coming forth from their dwellings, each attired according to his station, the laborer in a single garment, bare-headed and bare of foot, the man of wealth in sandals and tunic handsomely fringed. Entering one of the mansions of the rich, we find there costly furniture of chaste design and finished workmanship; chairs and tables with feet resembling the feet of lions or the hoofs of gazelles; couches canopied with the choicest fabrics of Babylonian looms, and curtains of figured tapestry. On a spacious and elevated platform on the western bank of the Tigris is the royal palace of Asshurbanipal, and nearby the still more magnificent palace of Sennacherib, surrounded with parks and hanging gardens. Guarding their portals are colossal figures of lions and bulls, winged and with human heads; the doorways are arched and elaborately sculptured, and the courtyards paved in artistic and variegated patterns. Within, the monarch, arrayed in embroidered robes, is seated in his carved chair of ivory and gold; in his hand a golden scepter, on his head a tiara glittering with golden rosettes, and on his breast an ornament bearing the sacred emblems. Behind him an attendant supports a fringed and curtained canopy, and in front is the grand vizier, awaiting in reverential attitude the royal orders.

Among other cities may be mentioned Khorsabad, founded by Sargon, a military leader whose successful campaigns raised him to the highest power, so that for two years he held court in Babylon, where he was crowned as king. To this point, some ten miles north of Nineveh, it was his intention to remove the site of the Assyrian metropolis with its royal residence, and on the walls of the palace which he built, on clay cylinders, and on tablets backed with gold and silver discovered amid the ruins, is told the story of this ancient pile erected more than 2,500 years ago. In this "palace of incomparable splendor erected for the abode of his royalty," many kinds of valuable timber were used, the beams encased with enameled tiles; and there was a spiral staircase the design for which was borrowed from a Syrian temple. "My palace," says Sargon, "contains gold and silver, and vessels of both these metals; iron produced from many mines; stuffs dyed with saffron; robes of blue and purple; pearls, sandal-wood, and ebony; skins of sea-calves, horses, mules, camels, and booty of every description."

Another powerful sovereign who reigned about this time, though as to the exact date there is some uncertainty, was Naramsin, ruler over "the four Houses of the World." (The title of King of the Four

Houses of the World was one commonly assumed by Chaldean rulers, as also were those of King of the Universe and King of Shumir and Akhad.) At Sippara he built a temple of the Sun, of which no traces now remain, except for a few small objects which attest the skill of Babylonian workmen, for Babylon was one of his possessions.

Among them are an alabaster vase which bears his name, and a mace-head of marble beautifully veined, dedicated to the sun-god by Sharganisharali, the completed name of Sargon. But more remarkable than either is the seal-cylinder of Sargon, one of the finest specimens of oriental engraving. From vessels whence issue the streams that flood the country, Gilgames, the Chaldean Noah, is watering the sacred ox whose huge crescent-shaped horns are held back so that a portion of the water may fall into his mouth.

By Sennacherib, son and successor of Sargon, Judea was subjugated as mentioned in Isaiah's prophecies and the book of Kings. "Now in the fourteenth year of king Hezekiah did Sennacherib, king of Assyria, come up against all the fenced cities of Judah and took them." As ransom for Jerusalem were paid, as related in the scriptural account, 300 talents of silver and 30 talents of gold, or as stated by Sennacherib himself, 800 talents of silver and 30 of gold. Whatever the amount, it appears to have sorely taxed the resources of the Jews. "And Hezekiah gave him all the silver that was found in the house of the Lord and in the treasures of the king's house. At that time did he cut off the gold from the doors of the house of the Lord and from the pillars." From Judea more than 200,000 persons were carried into captivity, the booty including a countless multitude of horses, asses and camels, oxen and sheep. In the reign of Asshurbanipal, grandson of Sennacherib and the Sardanapalus of the Greeks, the glory of the Assyrian empire reached its culminating point, as did that of Rome in the days of Augustus Caesar. His wars were incessant and chief among them was his campaign against Tirhakah, king of Ethopia, for the possession of Egypt. Thebes he captured during his first campaign in 667-66, and again a year or two later; for more than once the Thebaid rose in rebellion, as did many Egyptian cities of which says their conqueror, "I left not one." Thebes was treated with extreme severity. " They took possession of the whole city," declares the king, who was not present in person, "and sacked it to its foundations. They carried of f the gold, the silver, the precious stones, all the treasures of the palace, too great to be computed by accountants." Thebes was at this time one of the richest cities in the world, and the treasure secured from this and other conquests was enormous, filling the storehouses of Nineveh with the products of Asia, and causing its name to be feared throughout the ancient world. But with wealth came luxury, sapping the strength of the nation, and further intensifying the sensuality characteristic of Assyrian monarchs and grandees. Never before were the royal palaces of such magnificent proportions; never before had they been so richly adorned with sculpture; never had they shone so brightly with gold and silver. At the royal banquets, especially when the monarch returned from his wars with countless store of treasure, the festivities, held in the grandest of the sculptured halls, were the climax of barbaric splendor. The tables glittered with vessels of gold and silver containing the most luscious of Assyrian fruits. The richest of meats were served from platters of gold, and from vessels containing the choicest of wines were filled the golden beakers of the guests. On other occasions the king would sup in his garden, with only the queen as companion. Here he reclined on a softly cushioned couch, in his right hand the sacred f lower of Egypt, and his left elbow resting on a figured cushion or pillow, a fashion later imitated by the Greeks. At the foot of a table on which incense was burning sat the queen, the fairest of Assyrian women, resplendent in

jeweled robes of elaborate pattern. As from golden cups the wine was sipped, the soft low tones of the harp were wafted on the still night air, filled with the languorous odors of exotic plants.

Nor are there wanting evidences of a higher culture. Art was freely patronized, and from the Chaldeans and Babylonians had been acquired some knowledge of mathematical and astronomical science, while to the Assyrian court had been attracted learned men from many nations. But that which was most remarkable was the possession of a grammatical literature such as we find among no other people of antiquity, save in the Greek and Sanskrit. Of the library found in the palace of Asshurbanipal, Layard gives an interesting account; and while libraries existed before this date, as among the Egyptians and Hindus, there were none so comprehensive, or of such importance, or none at least of which any record remains. It was dedicated to the god and goddess of knowledge, and was probably a public library, as appears from an inscription on the more important books, if such we may call these tablets of clay covered with cuneiform inscriptions, though among them were found the impressions of seals which had also been attached to documents fashioned of papyrus or parchment. The characters, though sometimes so minute as to be almost illegible, are clearly defined, and were traced by a sharp instrument on the moist clay, just as the Romans made use of the stylus to impress their letters on wax.

They related largely to descriptions of wars and expeditions, with royal decrees, calendars, prayers, and lists of gods and of sacred days. But there were also scientific treatises on law and religion, with a collection of hymns bearing strong traces of Hebrew psalmody. In a geographical dictionary are mentioned all the countries and cities, the rivers and mountains familiar to the Assyrians, and a fragment has been preserved of a synchronous history of Assyria and Babylon in parallel columns. Finally there is an Assyrio-Babylonian grammar in encyclopedic form, containing among its parts the conjugation of verbs and a list of Assyrian synonyms. Many of the tablets are covered on both sides; all are numbered like the leaves of a book, and were doubtless arranged along the walls in the order of numbering.

Asshurbanipal is the last of the great Assyrian monarchs, and during the latter year of his reign the kingdom shows signs of dissolution. About the year 652 a general revolt is headed by his own brother, whom he had appointed viceroy of Babylonia; for, though delivered from the yoke of Sargon, that country was again subdued by Sennacherib, and long had striven in vain to free itself from bondage. With Babylonia, Elam, and Arabia, Palestine and Egypt make common cause, and though the last only succeeds in recovering independence, the end of Assyrian domination is near at hand. The death of Asshurbanipal in 625, though placed by some at an earlier date, is the signal for another insurrection. Babylonia and other provinces what at length shake off the yoke. Shorn of its grandeur, remains of the empire is left alone to struggle for a mere existence, under Sarachus, the last of its kings, and the prophecy of Jonah is at length fulfilled: "Yet forty days" and Nineveh shall be destroyed. The seat of power is transferred to her southern rival where under Nebuchadnezzar, as we have seen, it becomes the mistress of the world.

It was about the year 607 that Nineveh was captured and burned by the Medes under Cyaxeres, aided by the Babylonians. At a much earlier date more than 2,000 years before Christ, if we can believe Berosus Babylonia itself, together with a portion of Assyria, fell under the Median yoke, eight Iranian monarchs reigning for a period of 224 years. Of the earlier Iranian or Medo-Persian monarchy there is little information that little being furnished almost entirely by Ctesias and Herodotus, both of whom

wrote long after its fall, both telling their story largely from the statements of Orientals while the narrative of Ctesias though the more reliable of the two, has been only partially preserved by later writers, especially by Diodorus. In the days of Cyaxeres the empire was in the zenith of its power. Persia, then a secluded mountain country bordering on the gulf, had been conquered by his predecessor, Phraortes, who added to his domain one Asiatic region after another, until he was slain and his army discomfited in attempting the conquest of Assyria. Cyaxeres also became master of Armenia and Cappadocia but not until he had been himself overthrown by the Scythians with whom he made terms as also with the Lydians, the battle which ended a five year war with the latter being interrupted by the total eclipse of the sun predicted by Thales.

At this time the capital of the Median Empire was at Ecbatana the modern Hamadan, for there were several towns of that name. It was a great city, covering 50 square miles as Diodorus asserts though the moderate estimate which assigns to it about one-tenth of the area is doubtless nearer the truth. Almost in the center was the royal palace, nearly a mile in circumference according to Polybius, but this probably includes the citadel that encompassed it, with seven walls which Herodotus describes as of great size and strength, rising in circles one within the other, and so planned that each out-topped the one in front of it by the battlements only. Within the innermost wall was the palace, somewhat resembling in architectural design the temples of Greece or the royal houses of Susa and Persepolis. As Polybius states it was paved with marble, and on pillars of costly wood was supported a roof of silver plates fashioned in the shape of tiles the beams and woodwork being also coated with laminas of the precious metals.

Conquered by Cyrus the elder, the real founder of the Persian or Achsemenian empire, before whose arms fell Babylon in the days of Belshazzar Media was consolidated with the Persian domain by Darius I in whose system of centralization of legislation and finance is displayed the highest order of administrative ability. Dividing into satrapies or provinces the vast domain bequeathed him by his predecessors, he gathered from them a yearly tribute estimated by Grote at $22,000,000, of which more than two-thirds was paid in silver and the remainder in gold, this probably for the land tax alone. There was also tribute in kind. Media for instance furnishing 100,000 sheep, 3,000 horses, and 4,000 mules; Cappadocia half these numbers; Armenia 20,000 colts, and Cilicia 360 white horses. Then there were special taxes, as water rates and payments for the use of increasing the money value of the crown lands for various purposes, revenue to 550,000,000. With a portion of this revenue Darius established the first pure coinage of which there is any record, his gold darics, bearing the imperial stamp, being worth about $5.50 in modern currency, but with a much larger purchasing power.

With his conquests extending from the shores of Asia Minor eastward into the heart of Hindustan and northward to the banks of the Danube, we are not here concerned but it is probable that in his later years he ruled over a kingdom almost as large as modern Europe, excluding the realms of the tsar. On the richly sculptured tomb excavated in the rocks a few miles from Persepolis are inscribed the names of twenty-eight dependencies, including "Scythia beyond the sea," and to these, had he lived, would probably have been added Greece, notwithstanding the defeat at Marathon for his preparations were on a scale that under able leadership the Greeks would have found it impossible to withstand, most of the Hellenic states being already prepared to tender their submission.

At Susa, the new capital of the empire, Darius built for himself a palace, and in this ancient city, the Shushan of Hebrew story and long the center of the Elamite monarchy, was thenceforth the residence of the Persian kings. It lay in a fertile and well-watered plain, its rivers and artificial waterways affording access to the Persian gulf, so that, as Greek writers relate, it became a metropolis fifteen or twenty miles in circuit, a statement partially confirmed by the extent of its ruins. To Darius and his successors are also attributed the Chihil menare, or forty minarets, now the Takhti Jamschid, names given to the great terrace where are the remains of the lofty palaces of Persepolis, with their massive pillars and imposing colonnades, portions of which are still in existence. Here was the later and last capital of the Persian monarchy as it existed under the Achasmcnian kings; for with the capture of Persepolis and the destruction of the royal palaces by Alexander-in no drunken freak, as is the popular belief, but for the effect it would produce—the dynasty was at an end, and Persia became a province of the Macedonian empire.

Of the incessant wars of the Persians, and especially their wars with the Greeks, of the disastrous expedition of Xerxes, whose useless life Artabanes ended in the seraglio of his palace, of the upward march of the 10,000, followed by their retreat under the able leader who became the historian of the campaign, no further mention need here be made. A word may, however be said as to the wealth and, luxury of the Persians during the period between the reign of Darius, whose death was in 486, and the battle of Arbela, which ended the dynasty in 331. It was in the days of Darius, as I have said, that the unwieldy possessions of his predecessors were organized and fashioned into a firmly welded empire, with a well regulated, if somewhat oppressive system of laws and taxation . To the ability of "the great king" even his enemies paid tribute, and none more so than the Greeks, who of all others had reason to hate him—Aeschylus, for instance, who had fought at Marathon, and fully shared the wrath of his countrymen against their invaders, yet expressing in his Persae the utmost respect for their monarch. If he was a despot, he was less despotic than most of those who came before and after him, and by comparison with theirs his rule was mild.

During his reign and in those of his successors, gold and silver, ivory and gems were even more plentiful than in the most prosperous times of the Babylonians and Assyrians, from both of which nations he collected tribute. The mineral wealth of the kingdom proper included nearly all the more useful metals, while here and in its dependencies were also the precious metals, with nearly all the precious stones of commercial value; emeralds, amethysts rubies, sapphires, opals, carbuncles, agates, garnets, beryls, and these and many others being gathered from more than two-score provinces.

At this time the treasures of many countries were poured into the Persian metropolis. From Babylon and Sardis, from Borsippa, Damascus, and the cities of Egypt came the finest of carpets tapestries and linens from India the richest of shawls from Asia Minor ornamental metal work, and from Phoenicia, especially from Tyre and Sidon, her multiform manufactures. The walls of some of the palaces were covered with plates of gold, and under a canopy supported by pillars of gold, inlaid with precious stones, stood the golden throne of the monarch of all the Persias, while over his bed was a golden vine, the grapes represented by precious gems, each of enormous value. In nothing did the kings take so much delight as in costly and elaborate banquets, one of them it is said feasting 15,000 persons daily within his palace walls. Among satraps and lesser officials luxury and extravagance were also prevalent; for many were rich, the viceroy of Babylonia for instance, receiving an income of $500,000 a year.

Class distinctions were strongly marked, even to modes of salutation for those who were higher or inferior in rank. In the homes of the wealthy were many servants, each with his separate duties, not least among which were the curling of the master's hair and beard, the application of cosmetics, and the care of the perfumes and scented unguents, of which there was always a choice assortment in the households of the rich. There were also those who had charge of the wardrobes, with their f lowered tunics of purple, their embroidered vestments and bejeweled tiaras. Women were held in the strictest seclusion, secluded even from the company of their own relatives, and no greater breach of decorum could be committed than to inquire after the health of a Persian's wife. In early times the Persians were even more abstemious than were the Spartans in the days of Lycurgus, drinking only water and eating but once a day. Later they still eat only once a day but the meal begun at early morn and lasted until late at night; for with wealth came not only luxury but gluttony and drunkenness. Each man not only drank his fill of wine but took a pride in drinking it; so that intoxication was regarded as a fashion and almost as a duty, the king himself setting the example at the royal banquets. They drank from cups of gold and silver, arranged on tables inlaid with the precious metals; on their arms and necks were bracelets and collars of gold sparkling with gems were the golden handles and sheaths of daggers and swords, and of gold were the bits and in part the bridles of their horses, each one striving to outdo his neighbor in barbaric ostentation and display.

It was a common boast of the ancient Persians that for them was no necessity for toil or traffic, since conquest had placed at their disposal all the products of the earth. Thus it is that among their ruins little of value has been discovered apart from architectural remains, a few weapons parts of weapons, a few ornaments, coins, and seal-cylinders being all the smaller articles that have thus far been unearthed. Home industries were neglected; the practical arts were almost unknown, and as to the fine arts little has come down to us, except for drawings and depictions of the monstrous and grotesque. Commerce they held in contempt, and to buy or sell in the way of trade was considered beneath the dignity of the rich.

Most of the wealthier class were land-owners, renting their estates to farmers who lived in settled communities, while there were also many nomad and pastoral tribes. That from the earliest times the cultivation of the soil was esteemed as an honorable pursuit appears from a hymn in the Zend-Avesta, of which the following is a portion: “We beseech the spirit of earth, for the sake of these our best works, to grant us fair and fertile fields; to the believer as well as to the unbeliever, to him who has riches as well as to him who has no possessions."

Such was Persia about the time of the Macedonian conquest, when, after the murder of Darius Codomannus in the Parthian desert, Alexander threw his cloak over the last of the Persian monarchs. Of this monarch it is said that in his f light toward Bactria, at the hands of whose satrap he met his fate, he took with him $12,000,000 in treasure. Yet there remained sufficient to load 5,000 camels and hundreds of mules with spoils amounting to $150,000,000, the total value of the plunder gathered in Persia exceeding $200,000,000, and this Alexander placed in the city of Ecbatana. At his death there lay in the treasury at Babylon, which he made his capital, nearly $60,000,000, and from annual tribute was collected more than half that amount. But this by no means exhausted the resources of the country. Palaces were still erected and canals, irrigation works, and other public improvements were as numerous as ever. Some five centuries later, after the overthrow of the Parthians by Artaxerxes, father of the Sasanian dynasty, the second empire became almost as powerful as the first, dictating terms even to Rome herself.

Allowing for all exaggerations, there were undoubtedly in the four monarchies here considered vast accumulations of wealth. To Persepolis appeared to have been freely transferred the treasures of Nineveh and Babylon, though as to the former our information rests chiefly on the statements of Diodorus and Clitarchus; for the Greeks knew little of the city until after its capture by Alexander. Herodotus for example not even mentioning the Persian capital. Accepting as true the estimates of the spoils collected by Alexander, they would represent a greater value in gold and silver than is usually on deposit in the bank of England, where are largely held the reserves of European centers of finance. It is probable that after his departure little of value was left in the metropolis with which, as the avenger of his country, he dealt most severely, slaying the men and carrying the women into captivity. On this, as on other ancient seats of Asiatic civilization much light has been thrown within recent years through the exploration of ruins and the deciphering of inscriptions. However brutal and barbarous in some respects, we have seen that the nations which they represented possessed a knowledge of the useful arts, that they excelled in many branches of manufacture, that they had a system of commerce and coinage that in literature and the fine arts their efforts were not to be despised while on the architectural designs of the Persians were partially modeled those of the Greeks. But the discoveries thus far made are but an earnest of that which is to come, though already sufficient to show that much of what before was regarded as mythical or traditional must be accepted as sober reality.

In sketching briefly the annals of Chaldea, Babylonia, and Assyria, so far as they concern the purposes of this work, I have stopped for the most part with the overthrow of their ancient dynasties, or at least have not traced their records as far as the Christian era. All of them passed under the domination of other powers, now forming portions of the Turkish Empire, of Arabia, or of modern Persia, and in such connection they will be treated in later chapters. Of Persia, however, much remains to be said for this is still one of the most powerful and one of the wealthiest of Asiatic countries.

But in the later history of Persia we cannot here follow the court intrigues, the cruelties, perfidy, and fraud which were but common incidents in this as in other oriental despotisms, brothers falling by the hand of brothers, queens poisoning their rivals in the royal favor, and eunuchs usurping or bartering the throne for gold, to perish in turn by treachery. On the death of Alexander civil wars ensued, shattering the huge fabric of the Macedonian empire. Though nominally subject to a single ruler with Babylon as the capital city, the eastern possessions of Babylon were divided into satrapies often at variance with each other and always ready for revolt. About the year 315 we find Antigonus at the head of affairs, collecting from his diminished realm 11,000 talents or $12,500,000 of revenue, in addition to war taxes amounting to almost as much. Between 312 and 280 Seleucus Nicator was in power, building on the Tigris a new capital named after himself, but later removing it to Antioch. Many colonies he founded, and many cities he built, hoping to regain possession of the entire domain of Alexander. The explorations projected by the latter were carried into effect an expedition exploring the Caspian Sea, in quest of a north-east passage to India, and proceeding just far enough to confirm the false impression as to its existence. By Antiochus, son of Seleucus other cities were founded, and around the oasis of Mero, on the border land of Iran was built a wall 1,500 stadia, or more than 170 miles in circumference. By Asoka, his successor, walls were dug by the road side trees were planted where nothing before had grown, and hospitals both for man and beast were established throughout the land. Thus for a time longer the Macedonian dynasty continued, to be followed by that of the

Parthians, without leaving on its unstable empire, which never found favor among the people, any permanent traces of Hellenism.

It was about the middle of the second century that Iran fell under the Parthian yoke, though long before that date the Seleucids held divided sway with their northern neighbors. By Mithridates, a monarch of exceptional ability, the conquest was completed, his domain extending over all the lands from the Euphrates to the Indian branch of the Caucasus. In the following century Rome appears on the scene. The claims of various aspirants are settled by Pompey, who declines, however, to undertake a Parthian war. In 53 an army of more than 40,000 men, under the command of Crassus, is cut to pieces, only 10.000 making their way back to Syria, which presently becomes a Parthian province. A second expedition, under Mark Antony, fares no better than the first, losing nearly half its numbers, mainly by famine and disease. Finally, more than two centuries later, Roman prestige is reestablished in the east, but not without further reverses, an invading army, for instance, being compelled to purchase peace in the winter of 217 by the payment of 50,000,000 denarii, or nearly $9,000,000, as indemnity.

By Sasan, a Zoroastrian priest, was founded the Sasanian dynasty, his grandson Ardasha ruling over a vast and compact domain, which held together for centuries, in contrast with the loosely jointed empire of the Seleucids. Around the nominal capital at Istakhr, or Persepolis. where was the celebrated temple of the fire-goddess Anahedh and the real metropolis at Ctesiphon, was a large extent of fertile land adjacent to Roman territory for neither city stood on the soil of Iran proper. Long the struggle was continued between the two powers, and in the main on equal terms, the Romans suffering many a humiliating defeat, though under able leadership more than a match for their rivals, by whom were largely adopted the martial method, the civil and political institutions, and the arts and industries of the west.

Ardasha was esteemed as the greatest of Sasanian monarchs, as the best of law-givers, and one who had always at heart the welfare of his people. By his son and successor, Shapur, was taken captive the Roman emperor Valerian, after vainly attempting to ransom his army with gold but the successes of the Persians were seldom prolonged, and without enduring or important consequences. While their kings gathered what to them were large stores of treasure, they were small as compared with those of the mistress of the world, and altogether insufficient for a protracted campaign. Hence their armies could not long be sustained in the field, and their victories, though brilliant, were usually barren of results. Passing over the reigns of sovereigns, in which there is little of interest, in 532, during the time of Khosru, or Chosroes, surnamed the Blessed, a perpetual peace, so-called, was concluded with the Romans, who paid a liberal subsidy in return for the surrender of certain possessions on the eastern shore of the Black sea. But pretexts for war were never wanting, and a few years later Khosru invaded Syria, plundering all the cities which refused to purchase their indemnity, burning Antioch to the ground, and carrying thence a vast amount of spoil. In order to utilize for his own benefit the industrial enterprise of the west he established with his Antiochan captives a Roman quarter near his royal palace at Ctesiphon, and there until the fall of the Sasanian empire they lived in comfort with freedom of, worship and under a Christian mayor.

About the middle of the sixth century we find the Persians and Turks confronting each other on opposite sides of the Oxus, dwelling at first in peace, but not for long, the Romans forming an alliance with the latter, followed by a war which lasted until the death of Khosru in 579. Of Hormizd IV, his

son by a Turkish princess, daughter of the khakan, it is related that in answer to the priests, who would have him with- draw his protection from the Christians, he replied: "As our throne cannot stand on its front legs alone, so our rule cannot endure if we turn against us the members of alien religions."

Wars with the Romans or with the Turks and at times with both continued throughout his reign. Though wanting in tact, especially in his treatment of the nobles, his memory was honored for the firmness and impartiality with which he upheld the cause of the poor. Khosru II, styled the Conqueror, but all unworthy of his surname was a weak and boastful monarch avaricious, yet given over to luxury and display, and of whom the best that can be said is that he filled to overflowing an almost empty treasury. Even this he accomplished at the cost of his country, already impoverished by wars, while victories were won by his generals and not by himself. With little opposition the Persian armies marched westward almost, as far as the walls of Constantinople. Damascus and Jerusalem fell and the ruins adjacent to both these cities still bear witness to the desolation of regions where the hosts of Iran had never before set foot.

Then came the conquest of Egypt and in part of Asia Minor, further progress being staid by the arms of Heraclius, who after destroying the most sacred of Persian fire-temples drove Khosru, in panic flight to Ctesiphon. Here he ended his days, his legitimate heir, released from the prison where for years he had languished, being proclaimed king, while the monarch of all the Persias, with no hand raised to help him was carried to the scaffold from the hiding place where craven fear had driven him.

With Yazdegerd, grandson of Khosru, ended the Sasanian dynasty, after a reign of more than four centuries. Already masters of northern Arabia the Moslems were now at the gates of Iran. After several minor engagements, a decisive battle, lasting several days, resulted in the defeat of the Persians, their superior weapons availing nothing against the valor of the foe, while the elephants which always accompanied their armies served only, as with the Carthaginians at Zama, to add to their discomfiture. At a second great battle the last of the Persian hosts was shattered, and Yazdegerd fled without striking another blow, though retaining the semblance of royalty until, in one of the remotest districts of his empire, he met his fate at an assassin’s hand. Meanwhile Ctesiphon, Seleucia, and Susiana had been occupied by the Moslems, to whom, one after another, other cities and provinces yielded.

The spoils of Ctesiphon were almost as great as those which fell to the conquerors of Nineveh or Babylon. After one-fifth of the plunder, together with all works of art, had been set aside as the share of the caliph Omar, there remained sufficient to distribute among his army nearly $100,000,000. Founded early in the Parthian dynasty on the bank of the Tigris, a few leagues south of Bagdad, and with Seleucia on the opposite bank, here was the winter residence of the Parthian monarchs and later the capital of their domain. Within it and around it were parks and pleasure grounds, and though as to its size there are no authentic records, its population at one time probably exceeded a quarter of a million, more than 100,000 being carried away captives by the emperor Severus, ad 232. Among the mounds of sun dried bricks which form its ruins, now known as the tomb of Soliman Pak, the barber of Mohammed, one building only remains to attest its former greatness. This is the Tak-i-Khosra, or throne of Khosru, forming the vaulted hall of a palace more than 400 feet in length, with nearly half that width and 150 feet in height; in front a portico of stately marble pillars, and in the hall itself the signs of the zodiac wrought in golden stars.

For several centuries the Persians remained under Moslem domination, though never as a people becoming assimilated with their conquerors. More than once the work of conquest had to be undertaken anew for Iran would not readily yield to the yoke her spirit remained unbroken, and when finally subjugated her subjection was only in name. Her people were proud of their country, proud of their religion and of the memories of a glorious past. Though in later times accepting the faith of the prophet, it was freely leavened with their own, I and never accepted in its political and national relations. To the Arabian empire they were never an element of strength, but rather a thorn in the flesh, and to them, more than all others, was due the downfall of the Omayads, with which that empire came to an end.

Toward the close of the middle ages we find the most important cities and provinces of Persia included in the vast domain of Timur the Tartar, whose ravages were most severe in what was then the kingdom of Georgia, his successors adding to their possessions all that remained of Iranian territory. Of these the most prominent was Shah Rukh, the fourth of his sons, by whom was rebuilt the citadel of Herat, and in part the city itself, which he made his capital. Here, surrounded by men of letters and science, he held court in true oriental fashion, with boundless store of wealth and all that wealth can procure. By his successor, Ulugh Beg, science and literature were also encouraged and studied, and a college and observatory were built at Samarkand, the astronomical tables which bear his name being accepted by European authorities.

Passing over the Turkman and the earlier portion of the Safi dynasties, we come to the reign of Shah Abbas the Great, beginning in 1586. To a kingdom distracted by wars and insurrections he restored tranquility and peace to his subjects, though his name is tarnished by deeds of blood, he was in the main a gracious and tolerant ruler, devoting himself during the two-score years of his reign to works of public utility and to the development of his country's commerce and resources. By him was regained the rich trade of the Persian gulf, formerly in the hands of the Portuguese, with the isle of Ormuz as its emporium. His capital was at Ispahan, and there he erected some of the finest and most richly decorated structures of oriental design existing to-day in the east. Among them were his two palaces, their grounds and gardens sparkling with fountains, intersected with streams of running water, and shaded with rows of poplars and plane trees, all enclosed with a wall two miles in circuit. In the palaces themselves was a profusion of gilding, of mirrors ornamented in the choicest of arabesque patterns, and of paintings descriptive of Persian history from the hands of Dutch and Italian masters. Nearby were other buildings, occupied by foreign embassies, for at the court of Abbas were the ministers of several European powers. For the accommodation of travelers were built some of the largest caravansaries in the world, still affording rest and shelter to travelers in these latter years of the nineteenth century. While in other Persian cities well-appointed caravansaries are numerous, there are few that will compare with those of Ispahan.

Never perhaps since the days of the Sasanids was Persia more powerful and prosperous than during the reign of Nadir Shah, the last of the Safi dynasty, and one who has been aptly termed the eastern Napoleon. Proclaimed monarch in 1736, he rapidly extended his domain, eastward and to the north as far as the banks of the Indus and Oxus, while on the south his realm was bounded by the Persian Gulf and the Arabian Sea. Invading India, he received at Delhi the abject submission of Mohammed Shah, a dissolute and effeminate prince, of whom it was a common saying that he was never without a glass in his hand or a mistress in his arms. This city he pillaged, after massacring 120,000 of its

inhabitants, returning with spoils gathered here and elsewhere valued as is said, at $2,000,000,000, though one-tenth of that amount is probably nearer the truth.

Among the booty which fell to Nadir Shah were the famous peacock throne, and the still more famous diamond to which he gave the name of Koh-i-noor, or Mountain of Light. Found in the mines of Golconda for thousands, it was worn, as an Indian legend relates, of years by one of the mythic heroes of Hindustan, passing after the lapse of countless centuries into the possession of Zehir-ed-din Mohammed, the founder of the Mogul dynasty. After further changes of ownership it was presented to England's queen, and at the London Exposition of 1851 was the most attractive of all the exhibits crowds, waiting their turn to obtain a momentary glance as they passed between files of policemen. Though of purest water, it originally weighed nearly 800 carats but was reduced by unskillful cutting to 280 and later to 106 carats. To Nadir Shah, probably belonged also the great Orloff diamond, now of 195 carats, cut in rose form as is, the Koh-i-noor, and forming the principal jewel in the scepter of the tsar. After the death of Nadir it was sold to a Greek or Armenian merchant, and by him to Count Orloff for presentation to the empress Catherine, the price being $450,000 in silver roubles, with an annuity of $4.000 and a title of nobility. As both these diamonds are semi-oval in shape, with flat lower face, corresponding to the line of cleavage, it is supposed that the Orloff and Koh-i-noor are portions of the great stone formerly belonging to the Mogul another portion being recovered from a peasant, who, ignorant of its value, had long used it as a flint wherewith to light his pipe. If this be so, the three gems would form together by far the largest diamond in the world, nearly twice as large as the Mattam diamond, belonging to the rajah of Borneo, and weighing as many carats as there are days in the year.

After a period of anarchy and civil war we come to the Kajar, or present dynasty 9mm, of which Nasr-ed-din, the fourth in succession, is now the ruling sovereign. Of this monarch the first thing worthy of note is the number of his children and relatives; for he has about a score of legitimate sons and daughters and of grand-children almost as many, while the princes and princesses of the royal family are counted by the thousand. Next is his wealth, amounting probably to $30,000,000 or $40,000,000, and largely invested in the diamonds and other precious stones included in the crown jewels. The entire revenue of Persia, reduced by the fall in silver from $9,000,000 in 1890 to $6,500,000 in 1895, is at the disposal of the shah, and while most of it is absorbed by the army and by princes and pensioners, no inconsiderable portion finds its way into his treasury. His power is absolute, except that his mandates must not conflict with the doctrines of the Koran, on which all laws are based; for the shah is to his subjects what the pope is to the Christian world. Under him and at his bidding is a ministry with its several departments of foreign affairs, treasury, war, and the rest, as among European and American nations. The country is divided into provinces and these again into districts, the former under governors-general responsible to the crown and the latter under hakims or chiefs, appointed as superintendents, and collectors of revenue.

The population of Persia, estimated at about 10,000,000, is distributed over an area of 630,000 square miles, or less than 16 to the square mile, for most of its surface consists of desert lands. In the northern portion, bordering in part on the Caspian, are forest-covered lowlands, with a damp and fever-laden climate.

There are many races and tribes, of whom a large proportion are Arabian, Kurdish, Turkish, Baluchi and other nomads, but nomads only in, the sense that most of their time is passed in the hills, where

year after year they return from the plains to the same pasture-grounds, their flocks and herds including oxen, horses, camels, sheep, and goats. Each tribe is subject to a hereditary chief, whose authority is inferior only to that of the shah, and by whom taxes are collected and paid in money or kind.

While less than one-third of its surface can be classed as agricultural lands, the cereal crops of Persia are sufficient as a rule, for home consumption, though with occasional seasons of famine, caused by the failure of rains. Rice is the staple. Corn and barley are ground by water-mills of primitive construction, and the best wheat flour is inferior to English "middlings." Opium is the most valuable product, and of this the annual exports amount to 10,000 boxes, valued at $3,750,000. Among others are cotton and tobacco, fruits and vegetables, with henna and other dyes. Sericulture was in former years the most prominent industry more than 20,000 bales of, raw silk, now reduced to one-third of that amount, being shipped to foreign lands, with returns that covered the entire cost of all Persian imports. The vine is everywhere; its fruit of excellent quality and producing wines of more than local repute. Irrigation is fairly developed, and with artificial watering the soil is extremely fertile, entire families subsisting almost without labor, on a very few acres of land.

Of minerals and gems the turquoise is the only one largely utilized, though pearls, gathered in the gulf, are exported to a limited extent. Of gold and silver, iron, lead, copper, coal, and petroleum, the deposits are almost untouched.

Marble and petrifactions that bear that name are fairly plentiful, one of the finest specimens of the former being found in the tomb of Hafiz at Shiraz.

First among Persian manufactures may be; mentioned carpets and rugs, prized as much in the days of ancient Babylon as now they are by the wealthiest of European nations. In Egypt they were found in the palaces of the Pharaohs, and at the banquets of the rich were placed under the couches of guests. At a great feast given by Ptolemy Philadelphus, when Alexandria was one of the most opulent cities in the world, it is related that beneath hundreds of golden couches were placed purple carpets and embroidered rugs of finest and most delicate pattern, thin Persian cloths on which were embroidered the figures of animals covering the central space. Both Persian and Turkish carpets were introduced into western Europe by the Moors, and during the middle ages their costly and elaborate designs were preserved in the illuminated pages of romance. Most famous of all were the choice tapestries of Baldak, or Bagdad, and these were merely carpets whose texture was inwrought with threads of gold and silver. Such fabrics were placed in the halls of royalty, and before the altars of communion tables of churches. They were used as canopies for the host and for men of distinction in religious and other processions, were spread in the chambers of "ladyes faire," were used as coverings for furniture, and were laid on grassy lawns where troubadours discoursed sweet music and song.

Kurdistan carpets are now considered the finest of the thirty or more varieties woven in Persia, and among the finest in the world. Their patterns are worked on both sides, with borders well marked and of brilliant colors, their designs, as of f lowers or fruits, representing objects level with the ground and not in relief, as is common in European fabrics. Next in favor are the products of Karman looms, resembling, but with shorter nap, the finest of velvet pile carpets, and often wrought in realistic fashion with human and animal figures. Karman shawls, made of the under wool of a white sheep raised on the richest of Persian pastures, and little inferior in make or material to those of Kashmir, are also much in demand. Both shawls and carpets are woven by hand, the latter on a frame which

holds the warp, into which a woof of short threads is inserted by the fingers; no shuttles being used and the weaver depending on memory for his design. Among other branches of manufacture are wood-carving and metal-work, porcelains and earthenware, silverware, jewelry, and musical instruments.

The commerce and communication of Persia is hampered by the scarcity of wagon and carriage roads and navigable rivers. Of the former there are but three or four in all the empire, none of them as much as a hundred miles in length and the Karun, obstructed, by rapids, is the only stream on which even vessels of small draft can ascend from the Persian Gulf. It was not until 1888 that the first railway was opened, six miles in length, and in 1894 there were less than 50 miles in operation. Of telegraph lines there are about 5,000 miles with more than 100 stations but many of them belong to foreign powers. Mails are conveyed in carts, as also are travelers; for these are almost the only public vehicles. The first regular postal service was established in 1877, and now there is daily communication between Persian cities, weekly with India via Bushire, and semi-weekly with Europe by way of Russia.

Persian exports consist chiefly of opium, raw cotton wool, and silk, with carpets, pearls, and precious stones, valued for 1894 at $37,500,000. Imports are on a smaller scale, and include cotton and woolen fabrics; tea, coffee, and sugar; glassware and petroleum. Russia absorbs a large proportion of the trade, amounting to some 25,000,000 roubles a year, and next are Turkey and Great Britain, the latter exporting largely of textile fabrics. The customs dues, which are five per cent ad valorem on European goods, are farmed to the highest bidders, who realize therefrom a handsome profit.

There are several banks or banking agencies, foremost among which is the Imperial bank of Persia, whose headquarters are at Teheran with branches in all the principal cities. Chartered in 1889, with a capital of $20,000,000 and the exclusive right of notes, it has also the privilege of working all the mineral deposits wheresoever found in any portion of the empire, except those of gold and silver and such as are already conceded.

Teheran, with a population exceeding 200,000, and for more than a century the capital of the empire, has little apart from its size to distinguish it from other Persian cities. It was not until recent years that its streets were paved, or if paved were kept in repair, that its thoroughfares were lighted with gas and lined in part with buildings of modern architecture, contrasting strangely with hovels of mud or structures of mud and brick. Of mud also is the encircling wall, in which are several gates, some of them connected with the citadel, where are the royal and other palaces, with public edifices of the better class. Of mosques, the most pretentious are those of the shah and the shah's mother, the former with enameled facade.

The palace of the shah is a picturesque rather than an imposing edifice, surrounded with shaded courts and gardens, its interior a combination of western elegance with oriental luxury: for Nasr-ed-Deen, the present shah, has travelled much, especially in Europe, and there acquired progressive ideas which he has not been slow to introduce. One of the most attractive features in his palace is the treasury of crown jewels, in which are stored heirlooms transmitted by Persian sovereigns from time immemorial. with presents innumerable and much of the most valuable spoil with which Nadir Shah returned from the sack of Delhi, including the gorgeous Peacock throne, of itself worth at least $15,000,000.

Here are some of the largest and most valuable diamonds in the world, among them one called the Dar-i-Noor, or Sea of Light, with emerald rubies and other gems of corresponding brilliancy. There are crowns and suits of armor, each of which would furnish a prince's ransom; there are swords whose scabbards and hilts are ablaze with precious stones, and there are the choicest specimens of metal and enamel work, of shawls and embroideries.

Worthy of mention also is the palace erected by the shah Path Ah, great-grandfather of the present ruler. Passing through a spacious park between rows of venerable plane trees wreathed with ivy, the visitor comes to a marble tank, by the side of which is a pavilion of cruciform shape with domical r oof, its graceful spiral pillars colored in scarlet, green, and gold. Thence he proceeds to the main structure built around an octagonal court, and beyond to the ante-room where dwelt the wives of the shah and in which was his private parlor, its ceiling gorgeously tinted, its panels decorated with hunting scenes, and its walls adorned with portraits of Path Ali. of his thirty sons, of the chief officials of his realm, and of the many envoys who visited his court, their costumes of wellnigh a century ago all reproduced with a fidelity that adds to the historic value of the paintings.

Bazaars are plentiful in Teheran but not remarkable for excellence, while as elsewhere in Persia caravansaries afford at least passable accommodation for travelers. Much of the trade is in the hands of peddlers, or itinerant venders, who drive from house to house the most diminutive of donkeys laden with their goods. Dellals they are called, and seldom a day passes but one or more of them appears at the homes of the wealthy, bowing low and asking permission to display his wares. This granted, they are laid on the floor, and include an assortment hard to resist. There are shawls from Kashmir, the rugs of Kurdistan, and the embroideries of Sharaz; velvets traced with gold and silver thread, and sashes it for royalty to wear; boxes delicately inlaid with ivory and chessmen beautifully carved; salvers and vases, bowls and plaques of elaborate design; bracelets fashioned in gold and coffee sets in silver filigree; diamonds, rubies, pearls, and all manner of precious stones, with antique coins and gems on which verses of the Koran are inscribed. All these the dellal swears by his beard or by his eyes are of the finest quality; but if nothing is bought he shows no signs of resentment, leaving probably two or three of his choicest samples for further inspection.

Ispahan is one of the most sightly of Persian cities, with its buildings and gardens more than thirty miles in circumference its palaces of ancient and modern design, its scores of mosques and colleges and its hand some bazaars stocked with the richest of Persian fabrics. Of the palatial structures erected by Shah Abbas, near the close of the sixteenth century, mention has already been made. Adjoining are other buildings constructed in modern times and among the finest specimens of oriental architecture, some of them occupied by European embassies and others set apart for distinguished guests. Nor should we forget the palace of the Seven Courts, built by Shah Abbas' successor, in the midst of a suburban garden, and one of the fairest of all the fair mansions of Ispahan. Almost in the center of the city is one of the largest plazas in the world, nearly half a mile in length and more than a furlong in width, surrounded with arcades, and formerly used as a permanent fair-ground. In the center of each side is some remark- able edifice, remarkable not only for structural design but as an historic monument. One is the famous mosque of Mesjid-i Shah, the grandest of Persian temples, with its brilliantly colored tiles and glittering ornaments of gold and silver. Another is the mosque of Luti Ollah, second only to its neighbor in beauty and magnificence. A third is the entrance to the royal palace, and the fourth the gate of the great bazaar, above which, in former days,

a huge Dutch clock with automatic figures was the pride of the Ispahanis, and where now at rise and set of sun the "trumpet-house" gives forth its shrill, discordant blast.

Of colleges there are more than fifty, altogether out of proportion to the requirements of a population not exceeding 85,000, though many are set apart for the training of Mohammedan priests.

The finest of the college buildings, named after the sultan Hussain, is entered through a spacious portico, fashioned in part of Tabriz marble, the choicest of ornamental building stones, and with lofty pillars twisted in fantastic shapes. Through gates of brass finished in silver, and their surface embossed with floral designs or quotations from the Koran, the visitor enters the college square, on one side of which is a mosque with cupola and minarets the interior of the former faced with parti-colored tiles covered with invocations to the prophet. On two of the remaining sides are small square cells for the students, and on the fourth another portico of more simple and elegant design.

The bazaars of Ispahan extend for several miles in an almost unbroken line of uncovered booths the, crowds that frequent them giving a false impression as to the population of a city, the remainder of which is almost deserted. Here are still exposed for sale the satins silks and brocades; the lacquered boxes, the mirror frames, the keen bladed swords; the damascened gun-barrels and other articles for which in olden days these marts of trade were famous. But of foreign products there are few; for the commerce of the capital, like the capital itself, has fallen into decay. Of all this great city, containing, as is said, during the reign of Shah Abbas more than a million of people, less than one-tenth is to-day inhabited, entire streets being lined with debris and entire quarters deserted.

Tabriz is the principal emporium for the western trade of Persia, and especially the entrepot of commerce with Russia and Turkey, its total imports for 1894 exceeding $2,000,000, with imports of somewhat less than half that amount. In proportion to population few cities have so many public and sacred edifices; for here, with a population of 180,000, are more than 300 mosques, 120 public baths, 170 caravansaries and nearly 4,000 shops. Yet there are few buildings, either in existence or in ruins, that call for special mention. Almost in the center is the ark, or citadel, in which is a cumbersome and gloomy structure, formerly used as the residence of the heir apparent; this with the mosque of Jahan Shah, erected in the fifteenth century, being all that remains of its former splendor. None of the great Persian towns have suffered more from disasters; for in the ancient records of Tabriz is little else than stories of siege and conflict, of destruction by earthquake and pestilence, the latter still invited by the effluvia of its narrow and undrained thoroughfares. At Meshed, the commercial metropolis of northeastern Persia, is the great mosque, with facade of enameled tiles in blue and d white, and with gilded dome and minarets, beneath which is the shrine of Ali Riza, poisoned, as is said, by the caliph and afterward worshipped as a saint. Here, in this Mecca of the Persians, is the most sacred spot in all the empire; for to the marble tomb of their martyred hero, enclosed with rails of silver, pilgrims repair by scores of thousands, and in the service of the sanctuary are more than 2,000 attendants.

Rasht, the capital of the maritime province of Gilan, in northern Persia, is also a place of considerable trade, and especially of the silk trade, whose export value in former times amounted to $3,500,000 a year. It is connected, moreover, with the highways of commerce and travel between Europe and Persia, and communicates by water with the Caspian, from which it is only a few leagues distant. As for the town itself, there is little to be said, the governor's house and the consular residences being the only buildings of importance. In the former is an example of the picturesque effect of modern Persian architecture, with its elaborate but by no means costly decorations.

In conclusion a word may be said as to the national characteristics of the Persians; for the country is peopled by many races, forming a more cosmopolitan community than exists elsewhere in the world, except perhaps for the United States.

Though referring mainly to the wealthier and more cultured classes, my remarks apply also in part to those of inferior degree. As a nation they are noted for their hospitality, especially toward foreigners, their love of home, and their kindly treatment of children and dependents, repaid with an affection and even reverence that to our western notions would appear ridiculous. Etiquette and ceremony arc strictly observed, and the art of flattery, even in its grossest forms, is considered one of the necessary accomplishments of a Persian gentleman. The diplomatist, for instance, may lose the cause which he is advocating by the slightest inadvertence or neglect of trifles which none but a Persian would heed, as by an awkward gesture, a careless mode of salutation, or the pushing of a chair an inch or two beyond its appointed limit. In dress they are as particular as in manners they are punctilious, paying as much attention to the cut and fit of their garments as any American or European dandy.

To take life easily, to enjoy it, and to make the best of it is the characteristic of the Persians as of other oriental nations. Even in their business transactions they strictly adhere to the national maxim expressed in action, if not in words: “Never do to-day what can be put off till tomorrow," and that morrow is long in coming. While their merchants are by no means wanting in commercial morality, they expect, in the fulfillment of their obligations, an indefinite number of days of grace, and will not readily sign a contract which binds the parties to a date. To the poor and to poor relations and dependents they are extremely charitable, and of their charity few save the recipients are aware. Hence there are no almshouses in Persia; for none are needed, and except in seasons of famine no one suffers from actual want. The rich maintain, as pensioners on their bounty, aged servants, most of the former being slaves, though treated rather as members of the household. Between master and bondsman the terms father and child are frequently inter- changed, the one protecting his servitor from injury and wrong, and the other guarding faithfully the property committed to his care. Not infrequently slaves are employed as confidential secretaries and advisers, are entrusted with large sums of money, and with the management of important business affairs.

Young women, purchased at from $50 to $250, are employed in the lightest of housework, and if well-favored may become their masters' concubines or be given in marriage to their sons. Whatever their sex or condition, all are well treated, well clad and fed, and assured of a decent provision for old age. Once purchased, they are never sold, though on rare occasions they may be given away; to discharge them, or give them their liberty, is the greatest punishment that can be inflicted. If slavery is or has been a curse, it is not so considered in Persia: for here is reproduced, so far as is consistent with modern conditions, the patriarchal system of bondage which Abraham sanctioned and which the scriptures nowhere condemn as a sin.

The wealthy Persian is usually a cultured man and kindly disposed to men of letters. Poetry and romance are the realms in which Persians most excel, the origin of their national poetry being traced to the Sasanid dynasty, and the art of rhyme and meter to one of the Sasanian monarchs. In love stories and in depicting the passions of the human heart they have few superiors, and if colored with an oriental tint, these stories are never mawkish or super-sentimental. In history they have contributed much that is of value as in, their stories of India, of Mohammed and the caliphs, and especially in their universal histories, wherein are many curious data. In this department, however,

they are somewhat faulty in judgment and florid in style, geography and travel, in biography, in science and philosophy, they are little inferior to European nations, and by Persian writers and translators have been preserved the most valuable collections extant of Sanscrit literature and of Indian folkore and fable.

Miscellany

“The magnitude and magnificence of Babylon,” says Herodotus, who sojourned there about 450 BC, “surpasses every city of which we have any knowledge.” Then in substance he continues; it is filled with houses of three of four stories, forming streets in straight lines and running parallel with each other, the cross streets opening upon the river through gates of brass placed in the breastwork of the river walls. In the center of each portion of the city is an enclosed space; one is occupied by the royal palace, and in that stands the temple of Jupiter Belus, with its brazen gates. The ascent is by a path which is formed on the outside of the towers, and midway in the ascent is a resting place furnished with easy chairs, in which those who ascend repose themselves. The golden image of Bel, Baal, or Belus, the Jupiter of the Babylonians as of the later Tyrians, he places, not as stated in the text in the shrine at the summit of the great temple, but in a smaller edifice within its precincts, where is “an immense golden statue of Jupiter, in a sitting posture; around the statue are large tables, which with the steps and throne are all of gold, and as the Chaldeans affirm contain 800 talents of gold.

Outside this building is a golden altar; there is also another altar of great size on which are offered full grown animals. Once in a every year, when the festival of the god is celebrated, the Chaldeans burn upon the larger altar frankincense valued at 1,000 talents. There was also not long ago in this sacred enclosure a statue of solid gold, twelve cubits in height; so at least the Chaldeans affirmed; but I did not see it myself. This figure Darius Hystaspes would fain have taken, but dared not; yet his son, Xerxes, not only took it, but put to death the priest who tried to prevent its removal. Such was the magnificence of this temple, which contained also many private offerings.”

The Babylonians were much given to feasting in their gaudily decorated banqueting halls. Both host and guests were attired in scarlet robes, and on plates and dishes of gold and silver were served the richest of meats and the most luscious of fruits. They drank deeply of the choicest wines both during and after the feast, and when sufficiently intoxicated sang hymns to the praise and glory of their gods. On the floor were Babylonian carpets, the most costly fabrics of the ancient world; music was furnished by slaves or hired performers, and flowers in chased vases of beautiful workmanship filled the air with perfume.

Herodotus would have us believe that the dead were buried in honey and the daughters sold in marriage by auction, the money received for the more comely maidens serving as dowry for their homelier sisters. Another curious custom was the exposure of the sick in market places, so that those who passed by might inquire into the nature of the disease and suggest such remedies as had proved of benefit to themselves or their friends.

Several hundred diamonds have been found in the ruins of Babylon. Of those mentioned in the text as forming, with other precious stones, the crown jewels of the present shah of Persia, one is of 186 and another of 146 carats. As to the Orloff diamond, said to have belonged to Nadir Shah, and of which the more probable story is given in the text, another version is that it formed the eye of a Hindu idol in a Brahman temple at Pondicherri, from which it was stolen by a French deserter, when England and France were contesting the sovereignty of India.

The normal boundaries of Assyria proper; that is to say the portion containing Assyrian remains, apart from what was merely subjugated, extended from the 34th to the 38th parallel of latitude, with an area of about 75,000 square miles, or about the size of Great Britian.

Tilglath Pileser I, was one of the first Assyrian monarchs who visited Phoenician princes and merchants, probably about the year 1100. At which date that country was the wealthiest in the world, in the zenith of its power, and with colonies extending far into southern Europe. Tilglath was handsomely entertained and doubtless presented with costly gifts by Phoenician princes and merchants, all unaware that the yoke of Asshur was soon to lie heavy and long on their luxurious homes and their warehouses stored with the richest products of the earth. Such glimpses of boundless wealth the Assyrians regarded with covetous eyes; for their greed was insatiable, and of all the nations of antiquity they were the most unscrupulous.

When Asshurbanipal set forth on his wars, he was arrayed in splendid attire and attended by a vast retinue, around whom was his body guard of spearmen in scale armor and pointed helmet, followed by horsemen in coats of mail. His chariot was in the midst of the army, and behind it was the royal throne, seated on which, after battle or siege, he received the spoils and prisoners. With him went the members of his court and his concubines, the latter in closed arabas; nor did he forget his low-wheeled pleasure chair, his drinking cups, and his toilet articles; for while the fiercest of warriors, Asshurbanipal was somewhat given luxury. He was, moreover, a fearless hunter, lions being kept for sport in one of the enclosures of his park, and these, released from their cages, several at a time, he shot with arrows or killed with thrust or spear.

By one Layard's former assistants were discovered in 1877, within a few miles of Nimrud, portions of the bronze or copper plating of a huge Assyrian gate, the metal of course much the worse for wear, though still could be distinctly traced the bas-reliefs hammered outward from the interior surface as in modern repoussé work. The gates were exceedingly massive and belonged to one of the cities built by Asshurnazirpal.

It was from Susa that Xerxes, who is probably identical with the Ahasuerus of the book of Esther, set forth on his disastrous expedition against the Greeks. In the days of Alexander this city continued to be, as for centuries it had been, a great repository of wealth; so that on entering the Persian capital he found in its treasury, besides an immense sum of money, ingots of silver valued at $35,000,000 with 500,000 pounds of Hermione purple, worth more than all the rest; for this, when on rare occasions it was offered for sale, sold at the rate of $125 a pound.

Six dollars a tile was the cost of the heavily gilded tiling in the awan of Azid al Mulk, and on the minarets and dome of the harem adjacent, the latter being floored with marble covered with the richest of Persian carpets, while one of its doors is plated with gold set with previous stones, and another with a curtain of cashmere fringed with pearls. Above the mausoleum are three canopies, the first of silver, the second of iron, and the third of steel supported on a base of solid silver. This is one of the most popular of shrines, several hundred pounds of rice being daily prepared for the pilgrims who frequent it, with miracles to match.

In the closing years of the 13th century we find Marco Polo sojourning in Persia; and here a passage or two from the stories of this veteran traveler may not be out of place. "They relate," he says, "that in olden times three kings of that country went away to worship a prophet that was born; and they

carried with them three manner of offerings, gold and frankincense and myrrh, in order to ascertain whether the prophet were a heavenly king, an earthly king, or a physician; for, they said, if he take the fold he is an earthly king, if he take the incense he is a god, and if he take the myrrh he is a physician." And the child took all three, being he claimed, god, king, and physician.

"In this country of Persia there is a great supply of fine horses; and the people take them to India for sale, for they are horses of great price, a single one being worth as much of their money as is equal to 200 lives. Dealers carry their horses to Kisi and Carmosa, two cities on the shore of the sea of India, and there they meet with merchants who take the horses on to India for sale. In the cities there are traders and artisans who live by their labor and crafts, weaving cloths of gold, and silk stuffs of sundry kinds. They have plenty of cotton produced in this country, and abundance of wheat, barley, millet, panick, and wine, with fruit of all kinds."

In the kingdom of Kerman, he tells us, are founded in the rocks turquoises in great abundance, and in this statement he is endorsed by Ouseley, the orientalist, who cites a manuscript in which Shebavek is mentioned as the site of a turquoise mine. Presently Marco comes to a hot region, where "the fruits are dates, pistachios, and apples of paradise." The oxen are large, white as snow, with short and smooth hair; short, thick horns, and a hump between the shoulders two palms high. "There are no handsomer creatures in the world. When they have to be loaded they kneel like the camel." Their load is heavy for they are strong. There are sheep here as big as asses, with large fat tails weighing 30 pounds. On the border of the ocean is Hormuz, whither merchants come from India, with ships loaded with spicery and precious stones, pearls, cloths of silk and gold, elephant teeth, and other articles.

In Mulehet lived Aloadin, the Old Man of the Mountain, who constructed a paradise on earth after the plan of Mohammed. In a beautiful valley enclosed by mountains were plenty of fruits of every kind on the borders of streams flowing with wine and milk and honey and water, and inhabited by charming women who sang and danced divinely. Noble youths were introduced from time to time, while sleeping under the influence of a drug; to these the maidens were subservient; and when the Old Man wishes an earthly murder drone, he brought forth from his paradise a fitting instrument, and would not let him return until his mission was accomplished.

In the system of education obtaining among the Persians in the earlier days of the empire there is much in common with that of the Spartans, except that the former forbade there their sons to steal. At ten years of age or sooner they had learned how to ride and hunt, using the bow and javelin with their horses at full gallop, and rising before dawn to practice these and other exercises. At sixteen they became soldiers; and meanwhile, to prepare them from their profession, were required to make long journeys, sleeping in the open air in all kinds of weather, and receiving at times only one meal every second day. Book learning formed no part of the Persian's education, the chief aims of which were to teach him how "to ride, to draw the bow, and to speak the truth."

The Zoroastrianism of the Persians, called also Mazdeism, Mazda being another name for Ormazd, their supreme being, was founded on what was believed to be a direct revelation to Zoroaster, the great Bactrian reformer, probably about 1500 BC. Ormazd was omnipotent, omniscient, the embodiment of wisdom and purity, and the source of all knowledge and happiness. In contrast with him was Ahriman, the spirit of evil, bringing sin and death to man and sterility of earth. Hence it was that agriculture was considered not only an honorable but a sacred calling, as a duty to Ormazd and as

thwarting the malice of the spiritual foe. Magism, or the religion of the Medes, was gradually assimilated with that of the Persians, and the magi incorporated with the national priesthood.

Chapter the Second: Egypt, Phoenicia

I met a traveler from an antique land
Who said: Two vast and trunkless legs of stone
Stand in the desert. Near them on the sand
Half sunk, a shatter'd visage lies, whose from
And wrinkled lip and sneer of cold command
Tell that its sculptor well those passions read
Which yet survive, stamp'd on these lifeless things,
The hand that mock'd them and the heart that fed;
And on the pedestal these words appear:
"My name is Ozymandias, king of kings:
Look on my works, ye Mighty, and despair!"
Nothing beside remains. Round the decay
Of that colossal wreck, boundless and bare,
The lone and level sands stretch far away.

Although Chaldea is called the cradle of the race, it is with the history of Egypt that the history of wealth and civilization properly begins; for long before the ancient seats of empire were established on the banks of the Tigris and Euphrates, before even the father of Israel set forth from Ur of the Chaldees, the Egyptians were a cultured and powerful nation, governed by mighty sovereigns and far advanced, in the arts which pertain to civilized life. How ancient they were we know not, and there is little to guide us in the Hebrew narrative, where the land is termed Mizraim, though known to the Greeks as Aiguptos, or Egypt, at least 1000 years before Christ, the name being also applied in the Odyssey to the river Nile. While yet the patriarchs were feeding their flocks in the plains of Mesopotamia, Egypt was the granary of surrounding regions, and even then was a time-honored kingdom; for between the building of the great pyramid and the conquest of Cambyses the Persian more than twenty centuries elapsed.

The little that is known of the primitive races of Egypt points to a condition far removed from that of the pyramid builders. Their dwellings were of osiers and clay, or of sun-dried bricks, with but a single room and without apertures except for the door. A few articles made of wood, with wooden headrests for pillows, a few earthen pots, with mats of reeds and stones for grinding corn, were their only furniture, their clothing, whether for men or women, being merely loincloths, those of the latter afterward lengthened into tightly fitting garments with shoulder-straps to keep in place.

Some wore sandals of leather, wood, or straw but as a rule the feet were uncovered. Bracelets and necklaces were worn by both sexes, and these were at first merely strings of shells and pebbles, as were the ornaments worn on the ankles and breast. Later the pebbles gave way to precious stones, at least among the rich, whose scant attire was supplemented by a panthers skin. Their utensils were of stone, which obtained among the Egyptians long after other nations had learned the use of metals, a collection of flint knives, axes, and sickles, more than 3,000 years old being recently unearthed in the ruins of Kahun. Such they fashioned in the time of the Romans, throughout the middle ages, and their manufacture has not entirely ceased even at the present day, though at a very early date working in iron and copper was known, blacksmiths ranking as a privileged class. Their weapons were chiefly clubs and lances with sharpened point of stone; but they had also bows and arrows, slings, sabers, javelins, and boomerangs, the last still used in the valley of the Nile but not with the skill of the Australian black.

In the days of the Pharaohs the land, though not over peopled, was far more populous than at the present time, and with a much larger area of fertile soil. It was a favored region, and one well fitted for the earliest seat of civilization. Surrounded by ocean or desert, its upper portion guarded on either side by mountain ranges nowhere more than, eleven miles apart and in places reaching to the banks of the Nile, its lower portion intersected with numerous branches of that river, the valley which forms the heart of Egypt was one of extreme fertility, so that even today the country prospers, notwithstanding centuries of misrule. Self-supporting and easily defended, with ports on the Red Sea and the Mediterranean, it lay on the pathway of commerce between Africa and Asia, and of that which later arose between Africa and Europe. Here, if anywhere, could be developed the arts and sciences which tend to the betterment of mans estate. Of food there was enough and more than enough, with no necessity for making its production the sole or chief occupation of life, one man producing sufficient for a score of his fellow-men. Add to this the perfect organization of the people, both as to class and occupation, and no wonder that in Egypt more progress was made in a decade than in less fortunate realms in a century.

In the former, nature took the place of enforced and constant toil; and thus were achieved in the shortest time results which elsewhere must be wrought out in successive stages and were only made possible by slave labor, affording leisure to the few at the cost of the degradation and misery of the many.

From time immemorial cereals were cultivated on the banks of the Nile, and with returns so rich that agriculture became, as today it is the leading occupation, with hunting, fishing, and the rearing of cattle as secondary industries. On this kindly soil grain could be raised without labor, merely by dropping it into the mud from which the inundation had subsided, the growth being even more vigorous than from furrows deeply plowed. Fruits and vegetables were also abundant, and especially dates and figs; onions, lentils, beans, lupines, and vetches. Wine was freely used, as appears in the following translation from Lepsius and from the monuments of Prisse d' Avenne, the soul of one departed thus communing with an earthly friend: "Oh my brother, withhold not thyself from drinking and from eating, from drunkenness, from love, from all enjoyment, from following thy desire by night and by day; put not sorrow within thy heart, for what are the years of a man upon earth? The west is a land of heavy shadows, a place wherein its inhabitants, when once installed, slumber on in their mummy forms, never more waking to their brethren. Since I came into this funeral valley I know not where nor what I am. Give me to drink of running water. Let me be placed by the edge of the water, with my face to the north, that the breeze may caress me and my heart be refreshed from its sorrow."

Riches in those days consisted not of money, which in fact was unknown, but of fertile fields and plantations, of serfs and slaves, and of all kinds of tame and domestic animals, except the camel and the horse. Of one we read that he owned 5,300 oxen, besides smaller stock innumerable; of another that he had some 2,000 horned and hornless cattle, with 3,000 antelopes and goats. The possessions of the monarchs themselves were enormous, and in due time included goodly stores of silver and gold. King Rhampsinitus, for instance, who reigned not long after the siege of Troy, built for himself a treasure-house, on one side of which was the outer wall of his palace; and if we may believe Herodotus, he had more silver than anyone else in the world, more indeed than he could guard.

As the story is, in constructing this treasure-house one stone was left by the wily artificer so that it could be easily removed, thus affording access to the treasury; and when about to die he revealed the secret to his two sons, who thereupon carried away much metal. The king seeing the silver lowering in the jars, marveled greatly how thieves should gain access thereto, and set a hunting net as a trap. On their next visit one of them was caught, and unable to extricate himself, called to his brother to cut of f his head, and carry it away, that none should know them. More than ever was the king astonished when he saw a headless man in his trap, and ordered the body to be hanged on the outer wall and watch to be kept, if peradventure some mourner might be detected, and so the secret discovered. But the brother stole the body away, and the king so admired the adroitness of the thief, that he offered him pardon and his daughter in marriage if he would reveal himself, and this was done.

Another wealthy ruler was Thothmes I, by whom was richly endowed the Theban temple of Ammon, the Egyptian Jupiter, inscriptions showing that he was extremely liberal in his gifts of gold, silver, and precious stones, of fields and gardens, of corn and cattle. By this monarch also was probably begun, among other architectural works, the great palace of Karnak, two obelisks bearing his name standing in its central court. But Thebes was a city of palaces and temples, its street Royal, on which were many public edifices, fronting two miles on the western bank of the Nile. Diodorus assigns to it a

circumference of fourteen miles; Pliny speaks of it as a hanging city built on arches, whence an army could march forth without disturbing the inhabitants; and Herodotus as one "where are vast treasures laid up in the houses; where are 100 gates, and from each 200 men go forth with horses and chariots." While the legends of Egyptian Thebes were somewhat confused by the Greeks with those of its Boeotian contemporary, its name of Hecatompylos endured, though explained by Diodorus as applying to the propylaea of the temples. Worthy of mention is its huge necropolis, a series of sepulchral grottoes excavated in the Libyan hills, and more than five miles in length, a single tomb having an area of 22,000 square feet. Elsewhere were the sepulchers, or so-called gates of the kings, with separate burial places for the rich, since the cost of embalming was great, ranging it is said from $2,000 to $10,000.

Famous among Theban sovereigns for his architectural monuments was Usirtasen I, by whom among other buildings was erected the great temple of the sun at Heliopolis, near the ruins of which a granite obelisk, still pointing skyward, greets the traveler as he approaches from the east this realm of mystic wonders. After consulting his lords and counselors, the king issued a decree wherein he enjoined the superintendent and all who were employed on the work to be vigilant and to see that it be done without weariness, concluding with the words "Let the beloved place arise." Then arose the monarch, wearing his Baal diadem and holding his double pen, while all who were present followed him, the scribe, says Rawlinson, extending the measuring cord and laying the foundations of a magnificent edifice, now demolished by the barbarity of conquerors and the ruthless hands of time.

By the third Usirtasen was increased the power as well as the limits of Egypt more than by any of the ancient Theban monarchs. He reduced to subjection the southern tribes, erecting on either side of the Nile pillars with inscriptions warning the black races not to pass beyond them except when driving northward their flocks and herds. Still visible are portions of the massive granite and sandstone forts which stood near them on the almost perpendicular rocks above the second cataract. Later the king entered upon a war of extermination in the regions between the Nile and the Red sea, burning the crops, slaughtering the men, and carrying the women and children into captivity, somewhat after the fashion of modern Arab traders his raids or victories, as they were termed, being recorded on numerous columns. Completing his conquests by a final expedition, he extended the Egyptian frontier fifty leagues toward the south, drawing a line almost coinciding with that which in 1885 was established by Great Britain between Egypt and the Soudan. Thus did Usirtasen become the hero of the Theban empire; so that after his death myths were associated with his name, and his praises were sung by minstrels and poets. He subjugated, it was said, not only Ethiopia, but many portions of Europe and Asia. In Scythia and Thrace, in Asia Minor and Palestine his triumphal columns were erected, and in Colchis, the city of the golden fleece, he planted an Egyptian colony. He built colossi fifty feet in height; he constructed the canals which watered the land of Egypt, and in a word he was the greatest ruler who had existed since the days of Osiris.

By Amenhait, also of the first Theban dynasty, was founded in connection with his hydraulic works in the Fayum a labyrinth of which Herodotus says: "If all the great monuments of the Greeks could be brought together, they would not equal it either for labor or expense. It consisted of twelve roofed courts with as many gates exactly, opposite each other, and was enclosed by a single wall, the chambers, half above ground and half below, numbering 1,500." In the lower chambers were the sepulchers of the kings who built the labyrinth, and those of the sacred crocodiles. The upper rooms, continues Herodotus, "excelled all human contrivances, and the varied windings of the paths across

the courts aroused in me infinite admiration, as I passed from the courts into chambers, from chambers into colonnades, from colonnades into other apartments, and again from these into courts before unseen. The walls were carved all over with figures every court was surrounded with a colonnade built of white stones exactly fitted together, and at the corner of the labyrinth stands a pyramid 240 feet high, entered by a subterranean passage, and with figures engraved upon it."

To commerce and manufactures were largely due the power and prosperity of the Theban monarchy, beginning with the 15th century and continuing until the closing years of the 12th, with earlier dynasties extending far beyond the oldest of biblical chronology; for it is claimed that the pyramid of Menes was completed nearly sixty centuries before Christ. The entrepot for the caravan trade on the one side and for the rich traffic with the Indies on the other, it was moreover at no great distance from the mineral deposits in the limestone formation bordering on the Red sea. Linen, mainly for the priests and their attendants, who formed a large portion of the population, with pottery, glassware, and intaglios for whomsoever could afford to buy them, were among the principal manufactures, while on the construction and decoration of buildings, both sacred and secular, many of them four or five stories in height, thousands of artisans were employed. It was also the sacerdotal metropolis, not only of Egypt but of adjacent countries, filling the position later held by Rome in the days of medieval Christendom. With all these advantages, no wonder that it became the commercial emporium of eastern Africa, until Alexandria diverted northward the channels of commerce.

At Memphis, founded it is said, by Men or Menes, in whose name is suggested a typical impersonation of the human race, was probably the earliest center of Egyptian domination, though tradition exists of a still earlier kingdom of which all traces have disappeared. To Menes succeeded as Herodotus states, repeating the stories of priests, 330 monarchs, of whom eighteen were Ethiopians, one the queen Nitocris, and the rest Egyptians, the last of them dying some 900 years before Herodotus visited Egypt. Under the several dynasties Memphis became a great city, fifteen miles in circuit according to Diodorus, walled and with three enclosures, the innermost forming the citadel and variously termed "the white building," "the city of the pyramid," and "the abode of Phtha," its patron deity.

Of this ancient metropolis and its tributary region little is known, except that both were wealthy and under a powerful government. By Menes, it is said, was constructed a great dyke diverting the channel of the Nile to guard against inundation, and on the site thus reclaimed he built his capital, this "dyke of Menes" being carefully preserved by the Persians after the conquest of Cambyses. Temples arose, and palaces, the ruins of which, especially the temple of Phtha, with remnants of the colossal statues of Rameses II, indicating its locality some ten miles south of Cairo. Egypt, said the priests to Herodotus, was well governed until the accession of Chembes, or Cheops, whose reign ended, according to Lepsius, 3,032 years before Christ. After death his remains were excluded from the great pyramid which he built, and buried in a secluded spot, lest they be subjected to the insults of the people whom he had oppressed.

One of sixty pyramids, great and small, is the pyramid of Cheops, all of them lying on the western bank of the Nile; for among these sun-worshippers the West was the land of darkness and of death. No such stupendous monuments elsewhere exist, and none are described in history. The construction of the causeway by which blocks of stone were transported from Arabian quarries was the ten years task of 100,000 men, changed every three months, an additional score of years being required for the erection of the pyramid itself. The labor was enforced, and hard indeed was the lot of the laborers,

though perhaps not more so than with those who dwelt in the cities; for the poor were very poor, and only too content to for the scantiest of food and raiment. On the garlic and radishes, which except for bread was the only diet of this multitude of workmen, there were expended, as Herodotus relates, 1,600 talents of silver; but, says the historian, "let those who will" accept as credible the tales told by the Egyptians. The dimensions of this pyramid, now considerably reduced, are about 750 feet on each of the sides and 450 in height, ancient writers placing the latter at 600 feet. There is no attempt at structural decoration; but this assuredly not for want of skill, as is shown in the quarrying and transportation of these unwieldy blocks of masonry, in fitting them together with geometrical exactitude, and in polishing the granite used in the tombs and linings. Though as to means of transport we are as much in the dark as ever, the implements used have been partly ascertained, the stone required for the finer work being cut into shape by saws of bronze set with diamonds, or corundum; while for tubular drilling there were tools resembling the modern rock-drill, which is but an improved reproduction of an appliance common enough in the days of the earlier Pharaohs, and the use of which has been distinctly traced.

The largest of these monumental sepulchers of royalty, the pyramid of Cheops, is also probably the oldest, and differing in interior plan from all the rest, with a greater number of chambers and passages, and with a higher finish in portions of the work, though even the king's chamber is unadorned, containing merely a sarcophagus of polished granite. But of this and other pyramids I need not further speak; for they have been a thousand times described, and of some, especially those of El-Gizeh, we know as certainly by whom they were constructed as that the Pantheon was built by Agrippa and that the coliseum was erected by Vespasian and other of the Roman emperors.

Extending in a serrated line whose extremities faded into the horizon, they were plainly visible from the palaces of the Pharaohs, reminding them that while claiming descent from the gods they could not escape the common fate of man. Though in external aspect still almost unchanged, their sepulchral chambers have been rifled and disfigured even since the days of the first Theban empire, notwithstanding that the tombs were so concealed that none but the priests were supposed to know of their whereabouts. Wonderful were the stories current the people as to the treasures that lay buried with the dead, treasures in gold and silver, in jewelry and precious stones.

In all the pyramids were guardians on which sorcerers had bestowed their mysterious powers, and in many were images animated as was believed by the spirit of the founder. Enthroned in the pyramid of Cheops was a statue of royalty with scepter in hand, on which to look was death; for thence issued an awesome sound causing the heart to stay its beating. Yet of all the guardians, real or imaginary, none were powerful enough to shield from the depredations of more potent magicians the riches stored in the mausolea of Egyptian kings.

Of the Sphinx, symbolic of power united with intelligence, little more than the head, facing eastward toward the Nile remains above ground, though early in the present century the enveloping sands were partially removed, and the figure found to be 140 feet in height, with hands or paws of masonry projecting 50 feet, and between them a miniature temple with tablets representing monarchs as among its worshippers. In this connection may be mentioned the obelisk known as Cleopatra's Needle, now standing on the Thames embankment in London, and the one presented by the khedive to the city of New York, which cost $100,000 and more than three years time to remove. In the days of Rameses II, probably the Pharaoh of the Hebrew oppression and the Sesostris of the Greeks, who

ascribe to him all the great achievements of his predecessors with many that never occurred, Egypt reached the climax of her power, though invested with fictitious splendor by the great works executed during his threescore years of despotic rule. His campaigns were mainly defensive, or for the suppression of revolts, and only with the greatest difficulty could he maintain the limits of his colossal empire. In one of his battles against the confederated tribes of western Asia, it is related in the epic of Pentaur that, falling into ambush, deserted by his followers, and disdaining to fly, he cut his way single-handed through 2,500 chariots of war. The horses which drew his chariot he ordered to be fed daily with grain before the statue of the god Ra. It was during this so-called Hittite war that the Israelites, organized in gangs, were kept at work under task-masters, building the treasure cities of Pithom and Rameses. The lot of the Israelites was probably no worse than that of other bondsmen and captives, including the Egyptians themselves, whose peasantry, when free in name, were more sorely oppressed than even under Turkish misrule.

By Rameses, as by the Babylonian and Assyrian monarehs, entire tribes were deported for the prosecution of public works; for he manifested a mania for building, the remains of his temples and temple-palaces extending for hundreds of miles along the banks of the Nile. Among them may be mentioned those of Karnak and Luxor, of Abydos Memphis and Tanis, the last his favorite residence, with the Nubian temples of Abousimbel, hewn out of the rock, and the Rameseum at Thebes, where were preserved the records of his reign. Adjacent to the Rameseum was a temple erected in honor of Amenoph III of which no trace remains, except for the colossi which still stand side by side near the spot where the gates must have been. Of one of these giants in stone, called the vocal Memnon, it is said that when touched with the beams of the morning sun it gave forth a sweet musical sound, as of a human voice, caused probably by the effect of heat on a stone surface wet with dew.

Worthy of mention are the ruins of the great temple of Luxor, though but an appendage to the greater monuments of Karnak, the city of temples, one of them more than 1,700 feet square and completed only in the days of the Ptolemies. Of the former the propylon, or winged portal, is 200 feet in width, and in front is an obelisk of red granite, with hieroglyphics in vertical lines setting forth the titles of Rameses II of whom nearby are seated statues. On the wings of the portals are sculptures confirming the epic of Pentaur, the king represented as of gigantic stature, and urging his chariot into the midst of his foes who fall by hundreds beneath his arrows.

It may be said as to the ancient monuments of Egypt that they were reared many centuries before the founding of Athens, of Carthage or of Rome; were mentioned as antiquities by Plato and his contemporaries and will still remain when from the face of the earth has vanished the last vestige of others which now exist. Not content with erecting these huge piles in the valley of the Nile some, of them more than 4,000 years old, they carved in the rocks and embellished with the impress of their arts a subterranean Egypt no less magnificent than that whereon they dwelt. Thus did they strive to render their institutions immortal; thus in structures yet almost untouched by times corroding finger, they embodied their ideas as to the perpetuity of their religion, learning, and government, carving on tomb and temple pictures and symbols of their monarchs and deities, their sciences and their sacred precepts.

The Pharaohs built for themselves many mansions, seldom dwelling in the city of Memphis which cannot be termed their capital. Each one erected on some chosen spot, not far removed from the metropolis, a palace surrounded with residences for his court and household, none being content with

the habitations in which their predecessors had lived and died. Constructed in haste, they were as hastily abandoned, and though reared for eternity, did not long outlive their original owners, falling into decay almost as quickly as the hovels of the poor. Each group was in itself a city; for nothing less than a city would accommodate the royal family retinue, harem, and other adjuncts to the cumbersome establishments maintained by Egyptian monarchs. In the center of a space surrounded by a battlemented wall stood the imperial abode, marked by spacious and pillared balconies, whence as from a throne the Pharaoh observed the movements of his guards or awaited the arrival of envoys or officials. Approaching the presence of royalty with chanting of praises, with prostrations, genuflexions, wringing of hands, and bowing of heads, the favorites received costly gifts of golden jewelry or necklaces of gold, presented by the chamberlains, or, as a token of special regard by the sovereign himself. Then, through doors overlaid with malachite and richly adorned with the precious metals, the king led the way into his council hall with its rows of stately columns reaching to the roof, carved out of the rarest of woods and colored in bright, fantastic hues. Here seated, on a throne of gold, the ruler of rulers administered justice and dealt with the affairs of state.

The private chambers were divided from the apartments of state, and for the queen, the secondary wives, and the children there were also separate quarters. The last were under the care of tutors, or guardians styled "governors of the houses of the royal children," and for each one was appointed a residence, a train of servants, and all else that befitted his age and rank. On Sinouhit, for instance, who lived during the twelfth dynasty, was bestowed "a house of a son of the king," well stocked with gold and silver ornaments "worthy of a god," with the richest of garments and fabrics, and with perfumes such as would delight the senses of a scion of royalty.

Troops of skilled artisans were at his command, and better than all, he was supplied with unlimited orders on the treasury. For court nobles and the domestics of the household accommodation was provided within the palace walls, other officials and functionaries living in buildings grouped around narrow streets and courtyards, always within reaching distance of the emissaries of the king. Not in the household of Queen Victoria are there so many attendants and retainers, such minute and complex subdivision of duties and services as were found in Egyptian palaces. To make the toilet of a Pharaoh was the task of scores of men, each a master of his trade and each under a chief or director specially appointed for the purpose. There was the chief of the royal barbers who shaved the royal head and chin, of the royal hairdressers who combed and curled and adjusted the royal wig, placing thereon the diadem; there were the directors of those who cut and polished the royal fingernails, and of those who prepared the rouge for the cheeks the kohl for the eyebrows and the oils and perfumes with which the royal person was anointed. As to the wardrobe some had care of the body linen, some of the outer garments, and others of the materials of which they were made, all being fashioned on the spot. No sinecure was the office of those who had charge of the monarch's jewelry, with its multiplicity of rings and earrings, of bracelets and necklaces, and of scepters of cunning workmanship inlaid with precious stones, all being used on special occasions as a portion of the royal costume. But most responsible of all were the guardians of the imperial crowns, on each of which was a uraeus believed to be animated with the spirit of a living goddess. For the queen and for women of the harem the staff of servants was no less numerous and for the amusement of all were companies of singers musicians, and dancing girls, with dwarfs and buffoons, the latter, though selected from the most deformed and hideous specimens of humanity, not infrequently enjoying the friendship and intimacy of the king.

By Hatasu, daughter of Thothmes I, were erected in front of the temple of Jupiter Ammon two obelisks of red granite from Elephantine quarries. They were monoliths nearly 100 feet in height, beautifully engraved, covered with delicate hieroglyphics, and in the center plated with pure gold. Still more remarkable were the twin colossi reared by the grandson of Thothmes, in the shape of seated figures carved out of sandstone. They are still more than 50 feet in height, though less than formerly.

Unto Rameses II were born 170 children, thus indicating the extent of his harem; for he had but three wives, his thirteenth son, Menptah, or Menephtha who succeeded him, being commonly accepted as the Pharaoh of the Hebrew exodus. But we need not further follow the numerous dynasties of an empire which was already beginning to crumble; for their wars were as numerous as those of the Babylonians, Assyrians, and Persians under whose yoke Egypt successively fell, later to succumb to Alexander the Great and finally, to be reduced to a Roman province. As to some, however, a word may be said, and among them Neku II, the Pharaoh, Necho of Hebrew story. By him was reopened the canal connecting the Mediterranean with the Red sea begun by Seti I, and perhaps completed by his son, Rameses II. As Herodotus states it followed a circuitous route, first eastward and then toward the south, was four days journey in length, and wide enough for two triremes to row abreast. But after costing the lives of 120,000 laborers, the project was abandoned; for an oracle warned him that he was laboring for the barbarians which term, were the Egyptians applied to all who could not speak their language. On both seas fleets maintained; and to this reign the historian ascribes the first circumnavigation of Africa occupying more than, two years, and the greatest of ancient achievements in maritime discovery. The voyage was made by a Phoenician expedition acting under the orders of Neku, the men going ashore in autumn wherever they happened to be, sowing a tract of land with grain, and putting to sea as soon as the harvest was gathered. Thus was the rounding of the cape of Good Hope accomplished more than 2,000 before Vasca da Gama discovered the route to years India, just as other parts of the world were known to the ancients long before so-called modern discoveries.

Under Neku and his father Tsametik I Egyptian supremacy was for the moment restored, but for the moment only, the former being slain in the battle which gave to Babylonia the dominions of the East. By his son and successor additions were made to the temples of Thebes, Uahabra, the next in succession and the Pharaoh-Hophra of scripture, being deposed in favor of Amasis, with whom ends "the long majestic line of Egypt's kings." A wealthy ruler was Amasis, and as liberal as wealthy, subscribing for the rebuilding of the temple at Delphi, after its destruction by fire, 1,000 talents of silver, though from the gods of the Greeks he could not hope for favor. But riches still abounded in Egypt, and he ruled over many cities, among his laws being one which if now in force would tend somewhat to the depopulation of Christendom; namely that whosoever did not make an honest livelihood should be put to death. Many of the temples he adorned with works of art; others he repaired; at Memphis he reared a mammoth temple to Isis, and in front of the temple of Phtha he erected colossal statues, one of them a monolith 75 feet in length. He was a jovial monarch withal, and after attending diligently to the affairs of his kingdom from early morn until noon, he would drink and jest with his merry men for the remainder of the day.

Being reproved therefore by his counselors, he made answer, the bow always bent becomes worthless, and to work always tends to madness and disease." Of a bathtub fashioned of gold he made the image of a god, which was set in a public place and worshiped; whereupon Amasis laughed, and said, "it is the same gold so lately put to base uses which you now worship as divine." During his reign the kingdom flourished, though greatly shorn of its proportions, and of this prosperity there is sufficient

evidence in the enormous spoils acquired by the army of Cambyses, to whom Egypt finally submitted, never except for brief intervals freeing herself from the Persian yoke.

As to the industrial and social condition of the Egyptians before the conquest of Cambyses, while the pyramids are silent, much has been learned from their surroundings tombs the interior walls of which are covered with pictures and hieroglyphs reproducing the subjects of the Pharaohs as they appeared amid their daily business and pastimes. Much also may be gathered from the writings of Herodotus, Diodorus, Strabo, and Pliny, and especially from the first when speaking of matters of which he was an eye-witness, though of little value when related at second hand. While his chronology was faulty, and his traditions such as were obtained from self-interested priests, no foreigner saw more of Egyptian life and customs than did this inquisitive traveler. There were several castes or classes, the rank of nobility, if such indeed existed, being rather functional than hereditary, except the those of royal lineage who claimed divine descent.

Next after princes and such as held office in the royal household came the priests and warriors for all of whom ample provision was made. The priesthood was transmitted from father to son its members at Thebes and Memphis boasting their descent through more than 300 generations. They were rich and lived in luxury, claiming as a gift from Isis all the land in Egypt; and this they rented, their tenants being regarded as servants of the hierarchy.

In addition to their revenue and a liberal supply of food, they received contributions of cattle, sheep and wine. The original ownership of the remaining land was vested mainly in the king or his military officers, among whom were many of princely descent.

To the higher classes belonged also the judges and rulers of provinces and districts, these with architects and a few others being all whose names appear on inscriptions or to whom were granted the honors of sepulture.

The entire revenue of the richest among our latter-day monarchies could be packed into a few square feet of space; but the tax gathering of the Pharaohs could not be contained in the largest building in the world, their treasuries combining all the departments of factory farm, and warehouse. Though gold and silver were plentiful, coined money was, as I have said, unknown; hence, payments were in kind, and as with offerings to the gods, consisted of "all that the heavens bestowed, that the earth produced, or the Nile brought forth from its mysterious" sources. For the safe-keeping of these contributions were many storehouses within the palace enclosure, some of them divided into chambers, as the storehouse of provisions, where were meats and fruits, bread and wine, with other articles of food and drink, sufficient for several weeks consumption, even in an establishment where tables were laid each day for thousands of guests and employees. In the White storehouse, so-called from the color of its paint, were costly gems and fabrics; there was the Gold storehouse where silver was also placed; there was the "storehouse of the Oxen," and there were storehouses for liquors, grains, fruits, and weapons, with others whose uses have not been clearly ascertained. There were also grist-mills and bakeries, tanneries and slaughter-houses, laundries where linen was washed and ironed, and workshops where it was made into the piece.

For the safe-keeping and distribution of this unwieldy revenue an army of employees was required; for manifold were the duties connected therewith, some holding several appointments, all of which were coveted, if possible, with even more than the eagerness of a modern office-seeker. To be styled a

director or superintendent of a storehouse was the ambition of the highest nobles in the land, and the sons of the monarch himself did not disdain the title. Yet these offices might be held by the lowliest, and instances are by no means rare where men who began life as tillers of the soil have ended their days as governors of provinces and managers of many storehouses, overflowing with the garnered wealth of Egypt.

Such a man, for instance, was Amten, the illegitimate offspring of a scribe who lived more than 2,000 years before the Christian era. Beginning life somewhat above the condition of the peasantry, he was appointed viceroy over half the Pharaohs realm; his houses of store overflowing with gold and fine stuffs, and precious vases, with corn and wine and oil "multiplying the backs" of his oxen.

Except for the king, every Egyptian who would prosper in life placed himself under the protection of some one more powerful than himself, and to whom he rendered fealty or obedience. A man without a master was little better than an outcast, and to withdraw from this subjection was worse than withdrawing from life, since life was no longer worth the living. On the slightest pretext his neighbors might steal his property, and should he protest he was in danger of being beaten to death. If appealing his case, he sat at the gate of the royal or feudal palace awaiting the coming of the owner, though his petition were heard, it was but the beginning of further troubles. Against him the judges were prejudiced, turning a deaf ear to flatteries and complaints, his condition acting as a bar-sinister even to an indisputable claim.

As to the mass of the people, apart from merchants and tradesmen, they were tillers of the soil, laborers on public works, or artisans following their several avocations. The last were numerous, the various occupations being handed down from father to son as established by custom if not by law.

In addition to agriculture there, were gardening, hunting, fishing, and fowling; of handicrafts there were among others carpentry, masonry, bricklaying, and the polishing of pillars and statuary: there were manufacturers of textile fabrics of glassware, pottery, and metal work, with makers of furniture and musical instruments; all these contributing to the wealth and enjoyment of the few that is, to the aristocracy of landowners, who treated with harshness their servile peasantry and household slaves. Of these the estates were large and numerous, some owning a dozen or more, receiving from overseers statements of the produce as recorded by a scribe, and conducting operations on a gigantic scale. Seed was scattered broadcast, and planting performed by the tramping of sheep and goats over the moist surface of the inundated land. Donkeys were driven around the threshing-floor, and spades were used for winnowing the, products of a harvest reaped by sickles. Cows were milked in rows and oxen were mustered by the thousand, entire droves being slaughtered at times in the presence of their owners, whose tables on festal occasion's trains of servants loaded with roasted joints, with baskets of bread, jars of wine and pyramids of fruit. Apart from metropolitan centers, the towns of ancient Egypt differed not greatly in appearance from those which exist today. As a rule they were grouped around temples and citadels surrounded with massive walls, within whose ponderous gateways the people found refuge in case of need. In those of the better class paved streets of moderate width intersected at right angles, and were lined with buildings of regular frontage. The dwellings of the rich occupied a considerable space, usually presenting to the street bare crenelated walls, with here and there the merest apology for ornamentation. Within was the strictest seclusion; for none might gaze on passersby or be by them observed. In the reception hall were octagonal pillars supporting the roof, and in front of the doorway was a portico usually containing statues. There were also staterooms,

storerooms, and sleeping chambers, the family sleeping on the roof in summer and in winter crowding themselves into three or four apartments. The household valuables, consisting of ingots of gold and silver, ornaments, and precious stones, were guarded as far as possible from the depredations of robbers and tax-collectors, though secret indeed must be the hiding place that would conceal them from the latter. Except on the day of the weekly market there was no animation in Egyptian towns, no hum of traffic in their silent and deserted streets.

At early morn on that day peasants from all the country round filled to overflowing the spaces appointed for their use, those who sold livestock grouped in the center, and around them bakers, market-gardeners, fishermen, and venders of poultry, meats, and fruits offering their wares in baskets of reeds or heaped on low round tables. When commodities were exchanged for the precious metals, they were in the form of bent or circular strips of metal, and at each transaction were weighed amid much wrangling as to the adjustment of scales. But as a rule transactions were conducted by barter, the intending purchaser offering articles of his own production, as a necklace of beads or a pot of oil or honey. To exchange such products for what he needed was no easy task, especially when of considerable value was to be given, and this could be accomplished only after much shrewd bargaining. At the great religious festivals, of which there were three or four a year, the people shook off their torpor, awaking from long periods of drowsy inaction to do honor to their gods. First came the Egyptian New Year, on the eve of which fires were lighted in the sanctuaries and in places sacred to the dead. A moment later the entire land was illuminated from end to end, and even in the poorest families a lamp filled with oil in which salt was mingled shed its rays on their night-long festivities. On these occasions multitudes thronged from far and near arriving in caravans and boats well laden with merchandise; for after the festival came a fair resembling the weekly markets but on a larger scale. In the fine arts the Egyptians were no less proficient than in their industrial arts ranking next after the Greeks whom in some respects they excelled, especially in animal sculpture. All their principal cities and some of lesser note were adorned with temples filled with costly and for the most part colossal statuary. On every wall and pillar, on frieze and architrave were pictures or hieroglyphs relating to the architectural monuments on which they were painted or inscribed, forming indeed a portion of the temple rather than its decorative scheme. In the carving and decoration of their tombs they surpassed all nations of antiquity, not excepting the Greeks and Romans, for among them was a universal longing for posthumous fame, a life after death, the central idea of the Egyptian religion being symbolized in artistic forms in the construction of sepulchral chambers as enduring as the rocks on which they stood.

Within recent years the entire field of Egyptian literature has been laid open to research, and though as yet somewhat disappointing through lack of charm and lofty ideas, we know not what further investigation may reveal while the works which have been preserved are but fragments of those that have perished. It is probable that there were libraries in all the principal temples, though most of them have shared the fate of the literary treasures of the Greeks, which the Ptolemies stored in Alexandria. By classic writers mention is made of The Book of Egypt, and from the Rameseum at Karnak have been unearthed some remnants of "the sacred library" at Thebes. But most of the papyri that have come down to us were discovered in tombs and relate to religious subjects, the most important being The Book of Manifestation of the Light, which has been termed the Egyptian bible; so striking is the resemblance to certain passages of those of the Hebrew writings. Though consisting

chiefly of formularies, it fully sets forth the doctrine of a future life, with the pilgrimages of the soul, and the account to be rendered to its judges, both as to good and evil deeds.

To Thoth, the founder of the priesthood and the earthly counterpart of a deity worshipped as the personification of divine intelligence, the Egyptians attribute their earliest knowledge of science and many of their social institutions. It was he who taught them language, astronomy, arithmetic, geometry, and the use of weights and measures; these and other subjects being embodied in the sacred or hermetic books, the exclusive property of the priests. In the Berlin museum and elsewhere are a few fragments of scientific literature; and in the Turin museum is a remnant of a topographical map, executed at least 3,400 years ago, and showing the location of Nubian gold mines. In the days of Menephtha was composed the first fairytale; and of Egyptian romances, all were of a religious tendency. Of metrical compositions a few specimens remain, some of them little inferior to Homer's epics, as appears, for instance, in the following lines translated from Pentaur's description of the war of Rameses II against the Hittites:

Nor foot nor horse could make a stand against the warlike foe,
Who on Orontes' further bank held Kadesh citadel.
Then forth in glorious health and strength came Rameses the king;
Like Month the god he roused himself and donned his dress of war,
Clad in resplendent arms he shone, like Baal in his might;
Right on he urged his chariot wheels amidst the Hittite foe.

Of later Egyptian literature we know even less than of that which was contained in the libraries of the Pharaohs; for nearly all of it perished with the other treasures accumulated by the Ptolemies in the great library of Alexandria. In the days of the earlier Ptolemies the city became not only a seat of learning, but one of the commercial centers of the world. The first monarch of that name devoted his earlier years to conquest, later consolidating his empire, and with special regard for the welfare of his metropolis. Its harbor he enlarged and improved, bringing from Phoenicia thousands of shipwrights and from Lebanon cedar trunks for the building of his fleets. He established a coinage in gold, silver, and copper, the coins which have come down to us with his image and superscription reproducing features strongly marked by sagacity and resolution. Many costly edifices he erected; but on his own palace he expended little; for he was wont to say that a king should use his revenue for others and not for himself. He encouraged literature, science, and the fine and industrial arts, some of the most beautiful antique gems preserved being engraved during his reign; and these tastes were inherited even by the most worthless of his descendants.

By his youngest son and successor, Ptolemy Philadelphus, libraries were established, and among them the great library and museum in the Bruchium, or Hellenic quarter of Alexandria. Here were collected during his dynasty 700,000 volumes or rolls of papyri, and this is the library commonly reported to have been burned about the year 640 a. d. by the Saracen leader Amru, acting under the orders of the caliph. But the statement is improbable, and rests chiefly on the authority of Abulfaragius, who writing six centuries after the supposed event relates, as another version of his story, that the works were distributed among the public baths, where for six months they served as fuel. Though it has never been clearly ascertained by whom this act of vandalism was committed, it is certain that in the seventh century little remained of the Ptolemaic collections; for before the Arab conquest Alexandria

was several times plundered, the Persians carrying away many literary treasures while one of the libraries was destroyed by order of a Christian bishop.

Besides purchasing in Egypt, in Asia, and in Greece all the most valuable works that could be secured, thus making the libraries of Alexandria the best in the ancient world, Philadelphus invited to his court men of letters and science. Archimedes, for example, completing his education at the royal academy, where Euclid taught the elements of geometry nearly half a century before. Thus was formed a scientific and literary element in the metropolis such as existed nowhere else except in Athens, whose schools of philosophy had their counterpart in the museum. Nor did Philadelphus neglect the material interests of his kingdom. By him was reopened the canal that connected the Nile with the Red Sea, completed by Darius I as Herodotus states, or as some say, by another at an earlier date. He established a desert route for the traffic of caravans and secured for Egypt the rich commerce of Arabia and India.

Many cities he founded or rebuilt, and all this he accomplished without further expenditure than was needed for the development of his empire. During his reign and those of his successors Egypt became not only the granary of the world but the highway of its commerce, and especially of its carrying trade which centered, in Alexandria and there for centuries remained. The influx of wealth during the reign of Philadelphus and his successors was enormous and, on nothing did they so much delight to expend it as on their feast; for the Ptolemies loved pleasure even more than they loved conquest and self-aggrandizement. To the palace comparatively few were invited, but all might partake of the bounty provided for the people at the festal processions. On some of these occasions sham battles were held on land or in the harbor. To the victors were presented crowns of gold; and without accepting the statements that on one such feast was expended more than $1,500,000, we may readily believe the cost was larger than that of Cleopatra's famous banquet. But this was as nothing compared with the sums lavished on the army and navy, on public improvements, among them the great lighthouse on the isle of Pharos, and above all the library and museum, few sovereigns, ancient or modern, making freer use of their wealth than did the earlier Ptolemies.

Coming to the days of Cleopatra of the Roman dynasty, we find in Alexandria a population of 600,000 souls, of whom however nearly one-half were slaves. Second in size to Rome, it was a more beautiful city, with streets laid out in parallel lines, one of them 200 feet wide and intersected by another of equal width, both with costly structures for public and private use. In the Bruchium, in addition to the library and museum, were the palace of the Ptolemies, the temple of the Caesars, and the principal court of justice. There were also the Jewish and Egyptian quarters, the latter with its Serapeum, or temple of Serapis, to which was transferred a large portion of the famous library. From the mainland a mole seven furlongs in length extended to the isle of Pharos, dividing the outer harbor from the one of Safe Return, within which an artificial basin connected with Lake Marcopis and thence with the Canopic mouth of the Nile. At this time the wealth of the Alexandrians almost surpassed computation; so that it was thought they possessed the secret of making gold.

In addition to the products of Egypt, all the treasures of interior Africa, its ivory, its valuable timber, its ostrich feathers, and its gold passed through the hands of Alexandrian merchants, whose coffers were further swelled by traffic with European and Asiatic countries. In many branches of manufactures they also excelled, and especially in gem cutting and gold work, while their woven stuffs

were famous throughout the world, and their tables of precious woods, with feet of ivory, were purchased at fabulous prices.

Under Roman rule the kingdom of the Ptolemies was maintained, though shorn of its former proportions; but with the decadence of the empire Egypt, sharing in its disorders, also declined in power and in commercial prestige. Nevertheless, writing from Alexandria to the caliph Omar about the middle of the seventh century Amru boasts that he has, captured a city with 4,000 palaces and as many public baths, 400 places of amusement, and 40,000 Jews who were subject to tribute. But presently came further disasters, followed by the founding of Cairo and the discovery of the cape route to the Indies; and at the close of the eighteenth century there were less than 6,000 inhabitants in the city of the Ptolemies, once the commercial metropolis of the world.

With the further political annals of Egypt with the several, dynasties of the caliphs followed, by Turkish misrule and oppression, with the expedition of Bonaparte, which promised so much and performed so little, we are not here concerned. Passing to the reign of Mohammed Ali, who, but for British intervention, would probably have rescued Egypt from its abject condition as a Turkish province, we find the country at his death in 1849 more prosperous and less troubled by wars and internal strife than for many centuries before.

By him was framed, partly on European models, the systems of taxation, education, and commercial intercourse. His later years were devoted to public improvements, chief among which was the construction of the Mahmondieh Canal, connecting Alexandria with the Rosetta branch of the Nile. On this waterway, 50 miles long and 100 feet in width, were expended $1,500,000 and many thousands of lives, if human lives may rightly be counted in the cost of things.

To Mohammed Ali Alexandria is largely indebted for its restoration as a modern city; for of the ancient city built on the mainland few traces remain. Of the disposition of the two granite obelisks known as Cleopatra's needles and erected in front of the temple of Caesar mention has already been made. Near their former site are the remnants of a Roman tower, and on a mound not far away is Pompeys pillar, though why it was so named does not appear; for it is certain that the monument was neither reared by Pompey nor to his memory. Diocletian, as an inscription indicates, was the one to be honored; and by a statue of that emperor, the pillar, some 75 feet in height and 30 in basal circumference, was probably surmounted. Except for the catacombs, hewn out of the cliffs which skirt the shore, this is all that remains of the former mistress of the sea. Situated on the peninsula of Pharos, and on what was once an artificial dyke, now converted by the soil and debris of centuries into the isthmus which connects the peninsula with the mainland, modern Alexandria has more than justified the choice of the farsighted founder of that ancient city.

In its natural advantages as a commercial site, though freely supplemented by artificial improvements, it has no superior among Mediterranean seaports. There are two harbors, of which what is termed the western or old port is six miles long and more than a mile in width, with three entrances and water deep enough for vessels of heavy tonnage within a few hundred feet of shore. A breakwater extending for a mile and a half in a parallel line with the coast, a mole of half that length and 100 feet in width, several miles of quays and wharves, and one of the finest floating docks in the world are among the improvements made within recent years by a firm of English contractors at a cost of at least $10,000,000 to the Egyptian government. As approached from the mainland, the appearance of the city itself is by no means inviting, surrounded as it is by a flat sandy plain and

encompassed in part with the ruins of walls and outworks which obstructed the path of improvement. In the European quarter are handsome streets and residences; but in the Turkish quarter the buildings and thoroughfares are as unsightly and if possible more filthy than in the days of the caliphs. Around the great plaza, tree planted and with fountains, seats, and promenades, are the principal hotels and stores the wealthier classes, living for the most part in the suburbs where are, villas and gardens fashioned after modern conceptions of architectural and landscape art. Among the more prominent buildings are the palace of the pasha; the churches, mosques, and convents; the custom-house, arsenal, and hospitals. The water supply now introduced from a canal, outside the city, but formerly stored beneath the city itself in reservoirs filled by the overflow of the Nile, is almost in as good condition today as when constructed in the reign of the Ptolemies. Traffic is considerable, and if diverted for a time by the building of the Suez Canal it can never wrest from Alexandria her control of the rich and rapidly expanding commerce of Egypt.

Among the rulers of Egypt appointed by the caliph was Ahmad, son of Tooloon a Turkish slave who held high office in Baghdad. Later he became virtually monarch of the country, his allegiance being merely nominal, and at his death in 884 he is said to have left $300,000,000in his treasury, notwithstanding the costly edifices which he reared in Cairo to the glory of Allah and Ahmad. He it was who built in that city the great mosque of Ibn-Tooloon, with its pointed arches, the first so far as is known in the history of architecture. Other costly buildings he erected, of which, except for his mosque, nothing but ruins remain, and yet so well did he manage his affairs that during his regime taxes were largely reduced. In the reign of his successors wealth continued to accumulate, and in Egypt were found the richest of gold-embroidered dresses and robes, with plate and jewel-handled weapons rivaling those of the Persians. A carpet heavily interwoven with gold and silver is said to have been sold for $60,000, and we read of women who so loaded themselves with ornaments that they could not walk without assistance.

By the earlier sultans were erected in Cairo some of its stateliest structures, among them its mosques and the great hospital of Kaloon. Nasir, the Ismail Pasha of later days, expended $7,000,000 a year on the building of mosques, mausoleums, and bath-houses, with palaces for himself, his wives and harem. His stable, it is said, cost several millions, and other millions he expended more judiciously on the construction of an irrigating canal which converted waste lands into garden spots. By Hasan was built the famous mosque which bears his name, the finest specimen of Arabian architecture extant, and one of the most expensive, costing more than $3,000,000 and three years time to complete. Thus by successive rulers was Cairo beautified, until at the opening of the 19th century it was noted as one of the most picturesque of cities, and also as one of the dirtiest and most unhealthy, the death rate even at the present day far exceeding that of any European capital.

In regard to the great canal, it may be said that as far back as the time of the Israelitish exodus the Mediterranean was connected with the Red sea, though probably no canal was completed until the reign of the Ptolemies. By the emperor Trajan this canal, then known as the Augustus amnis, was enlarged and improved. Presently it became choked up and so remained until after the Muslim conquest, after which it was kept open for a century or more. It is probable that if Bonaparte had retained his hold on Egypt it would have been again reopened; for this was one of his favorite projects, and during his expedition he closely studied a report prepared by the French engineer Lepere. Work on the present Suez Canal was begun in April, 1859, and in little more than a decade it was open for traffic accommodating vessels 400 feet in length and 50 in beam.

First among the benefits of the Suez Canal is that it has shortened by more than one-third the voyage from Europe to the orient, reducing by at least a month the average passage of sailing craft. By these however, the canal is little used, the intricate navigation of the Red Sea and its light and baffling winds more than offsetting shortness of route, and thus virtually restricting traffic to vessels propelled by steam.

To countries bordering on the Mediterranean it has restored a portion of their ancient commerce, at the expense of many stations on the highway of the seas. Its success, together with that of the Caledonian, Amsterdam, and other canals constructed within the present century has insured the extension of such enterprises wherever they can be profitably utilized for the lessening of peril and delay. Even in Egypt plans have been discussed for rival canals, among them one for a fresh water channel between Alexandria, Cairo, and Suez, by way of Tel-el-Kebir. Though the widening of the basin and improvements in the service of the Suez Canal have, for the moment, caused these projects to fall to the ground, it is probable that one or more of them will be carried into execution at no very distant day.

During the reign of Ismail Pasha, grandson of Mohammed Ali, began an era of progress and reform, for Ismail was a man of strong administrative ability, had been appointed envoy to several European courts, and none rated more highly than he the boon of western civilization. He was moreover, a man of wealth, and mainly through his wealth obtained from the sultan the imperial firmans which declared him viceroy and virtual sovereign of Egypt. By him was opened in November 1866 the first Egyptian parliament, this being a revival with added functions and authority of the ancient assembly of notables, elected by the communes and largely composed of village sheiks. After receiving from the privy council and from the various ministers, as of commerce, agriculture, and finance, reports of their several stewardships, they devoted themselves to questions of taxation, legislation, and public improvements, always under Ismail's direction. By him were restored and amended the administrative and educational methods introduced by Mohammed Ali; the customs and post-office systems were remodeled, and works second only to the building of the Suez Canal were carried to completion under his auspices. Not least among his measures was the substitution for consular jurisdiction of courts where, side by side, Egyptian and European judges administered justice without regard to nationality. A code based on that of Napoleon, but tempered with Mohammedan law, was framed by the khedive and his advisers, and found well suited to the people's needs. If only these reforms had extended to other courts where, native officials still misinterpret native laws, the reforms introduced by Mohammed Ali have left nothing to be desired.

In June 1879 Ismail Pasha abdicated in favor of his son Mohammed Tewfik, father of Abbas Hilmi who, in turn became khedive. Ismail assigned most of his estates for the benefit of creditors, returning to Naples and ending his days at Constantinople in the early spring of 1895. Though in other respects an able ruler, he was the merest tyro in finance, ever at the mercy of contractors and money-lenders, and as improvident in the management of his own as of the nation's affairs. His mission or hobby in life was to Europeanize Egypt; but this he accomplished at enormous expense, and at the loss of many of his country's antiquities. Especially to be condemned was the vandalism committed in Cairo, where the destruction of these antiquities is not compensated by the building of a theater, an opera-house and a few other modern structures. While in time his improvements may add to the welfare of the people, they have laid on the present generation burdens greater than it can bear so that of the oppressed of all the earth there are none more abject than the Egyptian fellah.

Closely connected with Egyptian civilization is that of the Phoenicians while in ethnographic relations the latter were allied with the Hebrews some authorities even classing them as descended from a single race. Certain it is that in the earliest of historic times they called their land the land of Canaan; but this was a term of uncertain application, being used also in reference to Philistia and to a portion of the territory conquered by the Israelites. In common with the Egyptians they computed the annals of their people by myriads of years, asserting divine origin for the founders of their nation and for its earliest cities, Sanchuniathon, one of their earliest chroniclers even claiming that the race was autochonous, and evolved from chaos through a long line of gods. In the days of the Israelitish bondage in Egypt, Phoenicia was but a narrow strip of coast bordering on the Mediterranean, but with a thriving commerce. Though there were excellent harbors they were at this time filled with mud and sand, only one safe port being accessible for vessels of moderate tonnage. The people were well content to dwell under Egyptian rule, for they were treated with special favor and their services were in demand by the Pharaohs, whose subjects were but indifferent seamen. Under the protection of this powerful monarchy, as later under that of the Persian, they preserved their own dynasty and laws, their own local self government, and were left free to attend to their favorite pursuits, first among which was the pursuit of wealth.

But from the political annals of the Phoenicians let us turn to their commerce, their manufactures, and other industries, with some mention of cities which for many centuries were among the leading emporia of the world. By an Egyptian functionary traveling in the fourteenth century before Christ, Tyre is described as "a small town situated on a rock in the midst of the waves, one very rich in its fisheries, but to which fresh water must be” carried in boats. While ancient Tyre was founded on the mainland, probably more than 1,000 years before this date, it was not until long after the building of the inland city that it became the great mart of commerce of which Ezekiel speaks, "the crowning city whose merchants were princes, whose traffickers were the honorable of the earth." In the time of this Hebrew Tyre was in the zenith of her glory, with a commercial prestige exceeded only by that of Carthage in later days, all the great nations of antiquity contributing to her wealth. From Arabia came the gold obtained by traffic with Africa and India; and from other countries silver, lead, copper, iron, and tin; from Egypt linen, and from Palestine oil, honey, and balm; with wine and wool from Damascus, slaves from Armenia, and live-stock furnished by Bedouin Arabs. Especially valuable was the trade with Tarshish, in the valley of the Guadalquivir, where was a Phoenician colony.

Here were mines of silver and other metals, deemed worthless by the untutored Iberians. They were easy of access and within a few miles of navigable waters, so that the profits derived there from were enormous. It used to be told that the anchors of vessels returning from Spain were made of silver.

Of all the cities of Phoenicia Sidon was the most ancient, and, as we read, was famed for its maritime enterprise even in the days of Jacob: "Zebulon shall dwell at the haven of the sea; and he shall be for a haven of ships; and his border shall be unto Zidon." By Homer and in scriptural story the word Sidonians is applied to the Phoenicians in general. Neither in the Iliad nor the Odyssey is the word Tyre or Tyrians used, and in the Hebrew Bible it does not occur until the Israelites had entered into their land of Canaan, Joshua being the first to speak of "the strong city of Tyre." Doubtless however Tyre and Sidon with their dependencies formed a single monarchy, whose kings first reigned in the older capital, whence the nation took its name. At first a mere fishing station, a cluster of huts encircled with a fosse and, later a village built of stone and surrounded with a wall Sidon developed rapidly under Egyptian rule her maritime, commerce extending to all the eastern shores of the

Mediterranean to the Archipelago and even to the Black Sea, while her caravans secured the rich trade of Egypt, Syria, and the regions beyond the Euphrates. Her colonies were many and prosperous, covering the southern shores of Asia Minor, with others in Cyprus and Crete. In Cythera and Rhodes she had naval stations; in Thasos were the gold mines of which Herodotus writes after observing the magnitude of their workings; tin they obtained from the Caucasus, and silver, iron, and lead from the country of the Chalybes, all the products of her maritime and overland traffic finding a ready market in Phoenicia.

Carthage, the daughter of Tyre, first appears on the page of history in the reign of Cambyses the Persian, when the Phoenicians declined to join his expedition against that city, pleading, as Herodotus relates, "that they were bound to the Carthaginians by solemn oaths, and besides it would be wicked for them to make war on their own children."

Founded toward the middle of the ninth century by a band of Tyrian rebels under Elissar, afterward named Dido, or the fugitive, Carthage became the mistress of Phoenicia, and with many colonies and foreign possessions. Near the close of the sixth century we find her making a commercial treaty with Rome, and doubtless on favorable terms; for the great empire of the future was still in its infancy, while her later rival and foe was already the greatest of maritime powers. At this time the Carthaginians had almost reached the culmination of their prosperity, their possessions, extending even to Spain and Gaul, being firmly established through conquests undertaken only for the better security of commerce.

In Carthage we have one of the first instances of representative institutions, with a senate chosen by the people and suffetes answering to the Roman consuls, elected once a year but subject to revolution. There were also commissioners appointed from the members of leading families, and by these was again appointed the council of a hundred, whose functions somewhat resembled those of the Spartan ephors. In the government of the Carthaginians Aristotle finds much to commend, and if in the later period of the Punic empire offices were virtually for sale, and bribery as common as in these latter days of the 19th century, it was nevertheless a stable government, and one under which the people enjoyed prosperity and content. Certain it is that no weakly power could have borne the brunt of the Punic wars with their enormous drain of treasure and human life; and we cannot but regret that the struggle ended in the supremacy of Rome, whose conquests destroy so much that was worth preserving in the annals of human progress. The third of these wars is one of the saddest events recorded on history's page, and in all the long story of Roman oppression of Roman cruelty and arrogant self-assertion, we may search in vain for a parallel. After her defeat at Zama, the surrender of her fleet, and the payment of 4,000 talents as indemnity, Carthage was still one of the richest cities in the world the center not only of Phoenician wealth but of Phoenician culture science and art of which her conquerors have left but the merest trace. In this ancient seat of civilization, more than a century older than Rome herself, there were 700,000 inhabitants; there were industries and useful arts such as existed nowhere else, some of the latter being later lost for centuries, and some perhaps unknown at the present day.

Such was the city of which Cato never wearied of repeating, “delenda est Carthago,” a threat which found willing listeners in the aristocratic and narrow-minded party which blamed even the victor of Zama for his over lenient policy. The prosperity of her former rival, renewed in the face of manifold disasters was too much for Roman, jealousy, which displayed itself in careless acts of oppression. Her

citizens sought peace at any price; but Rome would not have it so; for the senate had declared that Carthage must be burned to the ground, and the plow passed over its site, which thenceforth should be held forever accursed. War being declared on some paltry pretext, each man and woman within its walls prepared for the death struggle, defending themselves with a heroism which at an earlier period would have saved them, but now was all in vain. After a two years siege, famine decided a contest which the sword had failed, to win and the decree of the senate was ruthlessly executed by the sternest of Roman generals. For seventeen days the city was in flames; a mound of ashes was all that remained of the great metropolis, and a few years later Roman bondsmen pastured their flocks on the spot where for centuries had stood the queen city of the ancient world.

Thus did Scipio Africanus the younger obliterate all traces of this wealthy and time-honored city, completing with cruel and inflexible resolve the hideous task with which his name will be forever associated. Yet in his better nature there was much to admire; for he possessed all the sterling qualities of the Roman of olden days. He was a scholar withal, an orator, and by no means wanting in refinement, numbering among his friends such men as the historian Polybius and the poets Terence and Lucilius. Neither on this nor on other occasions did he avail himself of his many opportunities for increasing his private fortune, touching not a sesterce of all the vast sums which he brought into the public treasury. To the Sicilian cities of the Greeks he restored the many works of art which the Carthaginians had carried away among their spoils of war. The contents of the valuable libraries collected in Carthage, second only to those of Alexandria, he distributed among barbaric princes, among them being an account of Hanno's voyage along the western shore of Africa, still extant as a translation, and a treatise on agriculture, which was rendered into Greek and Latin, and by both nations regarded as the standard work on husbandry.

As farmers the Phoenicians had no superiors, managing their estates with skill and system, and never acquiring more land than they could use to advantage. No country on earth, says Polybius, contained so many horses, oxen, sheep, and goats as did Libya, the word Libya being applied by the Greeks to all that was known of Africa, with the exception of Egypt. The richest portions of Europe also contributed to the wealth of Carthage; for her people were essentially a commercial people, and among them the calling of the merchant was ever an honorable pursuit, the city being not inaptly termed the London of antiquity. From inland traffic a golden harvest was also gathered, and in a word the carrying trade of the civilized world was almost concentrated in her two artificial harbors, one of them opening into the lagoon of Tunis, itself a Carthaginian city and playing an important part in the Punic wars.

The riches of Carthage were enormous, far exceeding that of Tyre and of all ancient centers of civilization. While closely concentrated they were also freely expended, the mass of the people having little, and being more readily influenced by the gold of the wealthy than by the solicitations of would-be reformers. Here were all the luxury and extravagance that pertain to a great and opulent commercial city, and in this respect it was strangely in contrast with the Rome of consular days, where as is related there was but a single set of silver plate among the families of the entire senate, and this reappeared in every house to which the envoys of Carthage were invited. The public revenues were derived from customs and tribute, without direct taxation of Carthaginian citizens. There is also mention of state loans, and there was a gold and silver currency, with token money, which latter had no intrinsic value. In spite of costly wars and the reckless waste of public funds, the income of the republic sufficed as a rule for the outlay. Later its finances were more carefully managed; so that after the second Punic war, the payment to Rome of the annual installments of indemnity, together with all

current expenses were met without tax levy, merely through a stricter financial administration, and after a few years of peace payment was tendered of the 36 remaining installments, amounting in all to nearly $8,000,000. Here in truth is a striking instance of the resources of Carthage, even after her power was broken and her sources of revenue grievously curtailed.

Miscellany

The mummies of Rameses II, the Pharaoh of the oppression, of Rameses III and other Egyptian kings, are now displayed in glasses cases in the Baluk museum, labeled as antiquities, so that all may gaze without fear on the great monarchs who declared themselves equal with the gods. In 1880 the mummy of Rameses II, which for nearly 3,200 years had lain at rest, was offered to an American Traveler for a small bakshish, but the traveler did not believe it to be genuine and so refused it. After being embalmed, his body was placed in the great sarcophagus of Biban-el-Mulouk, its vaulted halls and chambers adorned with carvings in relief representing his exploits. But though walled in, as was the custom, and covered with rocks and sand, so that none but the priests should know of its whereabouts, when discovered, it was found to be empty. The mummy, with those of other sovereigns, had been removed to a mortuary chamber near Deir-el-Bahari by Arabs who found its former resting place through mean known only to themselves, and for years drove a thriving trade in antiquities, even offering for sale the scarabs on which was the cartouche of Rameses II. Presently this came to the knowledge of the museum officials; one of the Arabs was arrested, and lay in prison for months, suffering frequent applications of the bastinado without revealing the secret. Finally his brother, being offered a larger sum than he could hope to make by further pillaging of tombs, made a full confession, except as to their clue to the secrets of the sarcophagus. Thereupon the curator of the museum was conducted to the hiding place, and of the finding of Pharaoh the following is in part his story: “Descending I began the exploration of the underground passage, and soon we came upon cases of porcelain funeral offerings, metal and alabaster vessels, draperies and trinkets, until, reaching a turn in the passage, a large number of mummy cases came into view. Making the best examination I could by the light of my torch, I saw at once that they contained the mummies of royal personages of both sexes. Yet that was not all. Plunging forward in advance of my guide, I came to a mortuary chamber, and there, standing against the walls or lying on the floor, I found even a greater number of mummy cases of enormous size and weight. Their gold coverings and their polished surfaces so plainly reflected my own excited visage that it seemed as though looking into the faces of my own ancestors. I took in the situation quickly and hurried into the open air, lest I should be overcome, and the glorious prize, still unrevealed, be lost to science. It was almost sunset, and nearly the whole of the night was spent in hiring men to remove the precious relics. Early in the morning 300 Arabs, each one a thief, were employed under my direction. One by one the coffins were hoisted to the surface, were securely sewed up in sailcloth and matting, and then were carried across the plain of Thebes to the steamers awaiting them at Luxor, two squads of Arabs accompanying each sarcophagus, one to carry it and the other to watch the carriers.”

Egyptian architecture may be said to have culminated in the reign of Seti and his son Rameses. The ruins of the pillard hall at Karnak, erected by the former, are among the grandest in the world, 330 feet long by 170 feet in width, and with the walls and pylons covering an area of nearly two acres.

At the festival of Bast, the Egyptian Artemis, 700,000 people assembled at Budastis, in the center of which were the temple and statue of the goddess. The people came in boats, bringing offerings from every portion of the land. Some of the men played the flute, with the accompaniment of castanets; the remainder sang and clapped their hands, and all drank a prodigious quantity of wine. In her monuments Bast is represented with the head of a cat, her sacred animal.

Except as to irrigation, agricultural methods and implements in Egypt differ but little from those of ancient times, save that cattle are used for most of the work before accomplished by human labor. Still, as in the days of the Pharaohs, three crops are gathered from the delta and valley of the Nile, beyond which the country is little better than a desert, its entire productive area being less than 13,000 out of 400,000 square miles, yet supporting a population of 6,500,000, apart from nomad tribes. In November cereals are chiefly sown; in spring, sugar-cane cotton and rice, and in summer vegetables and rice, flax, hemp, tobacco, and indigo almost completing the list of products. Cotton, introduced by Mohammed Ali, was largely cultivated during the civil war, and with India mainly supplied the deficiency in American crops. In 1892 the yield, which has not varied greatly since that date, was about 500,000,000 pounds from 870,000 acres of irrigated land. In grain are planted some 3,250,000 acres, and in other crops about 1,000,000, leaving uncultivated more than one-third of the cultivable area. Except for groves of palms there is no wooded surface in upper Egypt, and in all the land there is not a single forest nor even a wood. In the cities and in their neighborhood streets and roads are planted with the acacia, mulberry, and sycamore fig, while in the gardens are the myrtle, elm, and cypress, the date-palm, banana, and other fruit trees, with flowers in profusion though but little cared for. In the market gardens are vegetables of 30 or 40 varieties, raised on the smallest of plats or squares, separated by tiny channels ridged with earth, thus giving to an Egyptian garden the appearance of a miniature Egypt. The date, of which there are many varieties, is the fruit of greatest commercial value, and is prepared in many forms, those which come from the oases, and especially from the ancient oases of Jupiter Ammon, being most esteemed.

Figs and melons are also of excellent flavor and among others are the pomegranate, peach, and apricot, the orange, lime, and lemon. Grapes are common, though the vine is raised more for ornament than use, as the Egyptians drink no wine, and about the only species fit for the table is a small white grape grown in the province of Feiyoom. In this province are the remains of one of the most remarkable engineering works of ancient Egypt, named Lake Moeris, but rather a reservoir than a lake, built for irrigation purposes and also for the storage and propagation of fish. In olden days the vineyard was an important portion of the estate, for wine was always an accompaniment of the fest, and among the Greeks and Romans Egyptian vintages were much in request. Of modern Egyptian manufactures and of the attempts to foster them no further mention is needed, while as to the failure of these attempts there is sufficient evidence in the list of exports and imports, the former consisting almost entirely of raw products and the latter of manufactured goods. Of exported commodities, valued at $65,.000,000 to $70,000,000 a year, $55,000,000 is in the form of cotton and cotton seed, of which Great Britain takes nearly two-thirds, sending in return export worth at least $17,000,000, chiefly in cotton fabrics. Of cereals, Egypt, once the granary of the world, raises no more than is needed for home consumption, exports and imports being about equally divided. Sugar is an important item, with rapidly increasing shipments already amounting to nearly $5,000,000 a year. It is also worthy of note that fruits are largely imported into one of the finest fruit growing counties in the world.

From the rocky spur on which a bastioned fortress stands guard over the modern metropolis, the view of Cairo is one of the most imposing and suggestive in all the wide land of the Pharaohs. To the west and north are the broad river, studded with islets, and the delta, larger than a New England state, which forms “the gift of Nile.” Toward the south are gardens and groves watered by the upper course of a stream nearly 3,400 miles in length; on the northern horizon the pyramids are plainly visible, and

eastward beyond the tombs of the caliphs a wilderness of sand is skirted by a black-ground of barren cliffs. In the capital itself, now more than a dozen miles in circumference, the inner portion girt with massive walls palaces and mosques crowned with cupolas, a forest of domes and minarets reveals the symmetrical outlines and delicate tracery of oriental decoration. With time improvement has kept pace, narrow unpaved and crooked lanes and alleys giving way in the business and other quarters to modern thoroughfares, no longer swept by binding clouds of dust from the dumping grounds of a city's refuse. Plazas are numerous, and in the great square or park which for centuries lay waste are gardens encircling an artificial lake. Yet among Cairo streets are many which retain their former appearance, are a noisy and dirty, as narrow and dark as when Saladin built here his citadel in 1165, or when, nearly six centuries later, Mohammed Ali erected in the citadel his palace and mosques of oriental alabaster.

The several portions of the city, now containing at least 400,000 people, are named after the nationality, occupation, and condition of the inhabitants. While the poorer classes dwell in the meanest of human habitations, with nothing to relieve their squalor and unsightliness, the homes of the wealthy have seldom been surpassed in beauty of appointment and design, though here are few of the monumental structures which in western lands are regarded as tokens of wealth. The latter have seldom more than two stories, the lower one of stone from adjacent quarries, and the other of painted brick, both decorated in the arabesque, with windows in part of stained glass and projecting cornices of finished workmanship. Passing though a tortuous passage and an ornamental doorway we enter the courtyard, where is a fountain shaded with palms, a second fountain in the main apartment, paved with marble and used for the reception of guests, sparkling beneath the rays of a colored lamp. Around the walls of this apartment is a divan with cushioned seats and screened from view by cabinets inlaid with precious woods. In the upper story is the harem, this word being used merely in reference to the chambers set apart for the female members of the household. Cairo has its Italian opera-house, its French theater, its hippodrome, and other places of public amusement, much better patronized than could be expected in a city where the thermometer registers 100 degrees or more in the shade. Among public building of modern date are also several colleges and many schools, though in educational matters Cairo is not on a par with Alexandria, her system showing little improvement since the days of its founder, Mohammed Ali, In the public library is a valuable collection of manuscripts, and elsewhere is a still more valuable Mariette, one of the most famous of recent Egyptologists, his remains now resting in a sarcophagus facing the Bulak museum which is his noblest monument. In Bulak, a suburb of the metropolis on the eastern bank of the Nil, are cotton and paper factories, the finest products of the latter being used for the government printing-press purchased by Mohammed Ali for the encouragement of oriental literature. On the isle of Roudah a sugar refinery was erected during the reign of Said Pasha, and elsewhere are other forms of manufacture; but the output is small in volume; for Egypt is today, as in the days of the Pharaohs, essentially an agricultural country, and neither Cairo nor another Egyptian city can ever become a great manufacturing center. Commerce is varied and of large amount, though resented chiefly by goods in transit, as the ivory and ostrich feathers, the cereals, cotton, and sugar of home production passing westward, together with the fabrics of Persia and India, to be exchanged for articles of European make.

As, in a commercial sense, Cairo is merely an emporium for overland traffic, it has been little affected by the opening of the Suez Canal. Except that the Suez Canal affords a short passage for sea-going ships there is nothing in this great engineering achievement that resembles a canal; for it has neither

locks nor gates, neither pumping nor other apparatus common to such undertakings. It might better be termed an artificial waterway connecting two level and almost tideless seas, thus presenting no such natural obstacles as in the construction of the Panama Canal, which on account of the tides and differences in level, apart from other difficulties, is believed by many able engineers to be an impracticable feat. From Port Said on the Mediterranean, the Suez Canal passes through a series of shallow lakes divided by stretches of sand, until nearing Suez it enters the former basin of other and lower lakes now filled with water from the sea. Its total length is 88 miles, and its width at the top from 200 to 300 feet, with a navigable depth of 26 feet, the channel being marked on either side by beacons less than 100 yards apart, while at intervals never exceeding five or six miles are places where vessels may moor for the night of wait for others to pass, all movements being regulated by telegrams from Port Said, or the intermediate station of Ismailia. In the execution of this work, at a cost of nearly $100,000,000, from 25,000 to 30,000 laborers were employed, and more than 700,000,000 cubic feet of sand and other substances excavated. It was not without many difficulties, engineering, financial, and otherwise, that the task was finally accomplished, and not least among them were the reports of those who, for whatever reason, were opposed to the undertaking. In 1862, for instance, Sir John Hawkshaw, instructed by the khedive after whom Port Said is named to prepare a report independent of the French company, stated among his objections that the canal would silt up or be filled with the moving sands of the desert; that ships could not safely enter Port Said on the Mediterranean side, even if it could be kept open, and that the navigation of the Red Sea was difficult and dangerous. However puerile these objections, and especially the last, —they served as an excuse for the non-fulfillment of the viceroy's contract. The real objection was to the terms of the concession, which called for enforced labor and a grant to the concessionaires of all lands that could be irrigated by a freshwater canal to be constructed for the use of the workmen. In fact this fresh or sweet-water canal was never constructed, a supply being brought for the Nile near Cairo and distributed throughout the entire length of the works, a task of itself of no ordinary magnitude. Thus, however, was overcome the main objection to the completion of the Suez Canal. While Hawkshaw's examination was yet in progress, Said Pasha died, and was succeeded by his brother Ismail, who was even less in favor of the project, though by him and his predecessor had been furnished one half of the capital, most of the remainder being subscribed in France. Finally the questions in dispute were referred to the third Napoleon, who as indemnity for loss of time and the surrender of privileges awarded to the company the sum of $19,000,000, to be applied toward the completion of the work. During 1870, the first complete year of operation, the receipts were somewhat over $1,000,000, nearly 500 vessels passing though the canal, with a gross tonnage of 655,000. Thenceforth traffic increased; in some years rapidly, in others steadily, reaching its maximum in 1891, when the number of vessels was 4,200, the tonnage 12,200,000, and the income more than $18,000,000. For 1893 the net profits exceeded $8,000,000, divided, after the payment of give percent interest on the shares, among the Egyptian government, the founders, employees, and managing directors. That the control formerly held by Ismail Pasha was purchased by Beaconsfield for the comparatively insignificant sum of $20,000,000, was due to Egypt's financial difficulties and to the alienation of the khedive's dividends until they should suffice for the settlement of disputed claims and accounts. To this control is partially due the preponderance of British vessels and tonnage –more than three-fourths of all that pass though the canal. Here also was the main pretext, and that but a sorry one, for the British occupation of Egypt. The public works undertaken during the reign of Ismail Pasha were on a scale such as no former viceroy had even dared to contemplate. First, as to the Suez Canal it should be said that after the arbitration of Napoleon III, notwithstanding his excessive award, he gave himself

heartily to the completion of the task, and proceeding to Europe personally invited its sovereigns to the formal opening in November 1869. For the barrage of the Nile, largely increasing facilities for irrigation, the plan was formulated and partly executed during Ismail's reign. By him were mainly constructed the great harbor works of Alexandria and Suez, and at a cost of nearly $1,000,000, seven first-class lighthouses erected on the Mediterranean, and as many on the Red Sea, were added to the single third-class light contained in all the land of Egypt. Of the 1,300 miles of railroad, connecting among other points Alexandria Cairo Ismailia and Suez, nearly all were constructed during his reign, a project for a Soudan railway, 1,000 miles in length, shortening the route to India and bringing nearer to Cairo the rich products of the south, being suspended and perhaps abandoned on account of costly engineering difficulties. Telegraph lines were established, both surface and submarine, bringing Egypt into communication with Asia Europe and the United States, a system or combination of systems some 4,000 leagues in length and probably the longest in the world, now Connecting Cairo with San Francisco. Nor, while freely lavishing millions for the welfare of others, was the khedive unmindful of his, but he built for himself a palace which rivaled in splendor those of his wealthiest predecessors. Its furniture and appointments were the best that money could purchase, with the riches of silken hangings and of mural decorations, the mantes of onyx along costing more than $15,000. But the crowning feature was its kiosk, or pavilion, eclipsing in splendor and charm the most finished efforts of modern oriental architecture. All this, as may be imagined, Ismail did not accomplish without the employment of borrowed funds, and these he used in most extravagant fashion, pushing forward his public works with more haste than discretion, and concluding with European firm contracts which could not fail to embarrass his exchequer. For a time the evil day was deferred by foreign loans, the khedive obtaining though a liberal distribution of largess the right to negotiate loans at will. Of this privilege he was not slow to avail himself, loan following loan in rapid succession, but only making matters worse, for all were issued at a heavy rate of discount and at inordinate rates of interest. Thus from the one of 1868, redeemable in 1898, with a face value of about $60,000,000, little more than one-half was received in cash, and on this was paid as interest and sinking-fund more than 13 percent a year. Of the $160,000,000 which formed the nominal amount of the loan of 1873, less than $100,000,000 fell to Egypt's share, the annual charges thereon exceeding 12 ½ percent. Even his own private estates the viceroy mortgaged on most unfavorable terms, caring as it seemed for nothing so long as his favorite projects were materialized in the shortest possible time. Of all the Egyptian loans it is probable that none cost less than 12 percent on the actual sum subscribed, while on the railroad loan of 1866 the rate was 27 percent. Such was Egyptian financiering in the says if Ismail Pasha., and no wonder that when a British representative was ordered in 1875 to inquire into the financial condition of Egypt he found the country more than $400,000,000 in debt, with a revenue entirely insufficient to meet the charges thereon. Then came suspension of the payment of interest on bonds, followed by the collapse of Egypt's credit, and the rehabilitation of her finances by a European board of control. We need not follow the financial and political complications which led to the Anglo-French intervention, the bombardment of Alexandria, the British occupation, the campaign which closed at Tel-el-Kebir, and the episode which ended with the death of General Gordon. Suffice it to say that at the end of 1894 the Egyptian debt had increased to more than $50,000,000 but with interest reduced to an average of less than four percent, the budget for 1895 placing the national income at $50,000,000 against $48,000,000 of expenditure.

In the bazaars of Thebes were represented the products of many oriental nations. There were embroideries from Babylon, richly ornamented stuffs from Syria, Hittite and Phoenician jewelry, and

gold, amber, and coral from lands beyond the sea, all intermingled with fine linens, furniture, glasswork, and other articles of home manufacture.

Gold in dust or nuggets and in packets of given weight came from the heart of Africa, where it was collected by Negroes from river sands; silver and electrum were supplied by the Phoenicians and Ethiopians, while in Egypt itself were valuable stones of many descriptions.

Most of the Egyptian nobles owned many chariots and horses, on the purchase and care of which they expended much time and money, the Pharaohs rewarding those who had well kept stables. At first the chariots were imported; but soon Egyptian workmen learned how to make lighter and more elegant vehicles, such as a man could easily carry on his shoulders. They were constructed chiefly of wood and leather, though gold, silver, and bronze were used for ornamentation.

Among the domestic animals of Egypt and also of Syria is the long tailed sheep, with tail so lengthy and so loaded with fat that a board, sometimes mounted on wheels, is placed beneath to keep it from dragging on the ground. The appendage sometimes weighs nearly half as much as the animal itself, and the fat, esteemed as a delicacy, is so soft as to be used in place of butter.

The wealth and luxury of the Phoenicians at one time almost surpasses belief. Tyrus did build herself a stronghold, says Zechariah, "and heaped up silver as the dust and fine gold as the mire of the streets." And thus Ezekiel apostrophizes the queen city of the Phoenicians. "O thou that dwellest at the entry of the sea, thou, O Tyre, hast said 'I am perfect in beauty.' By thy wisdom and by thine understanding thou hast gotten thee riches and hast gotten silver and gold into thy treasuries. By thy great wisdom and by thy traffic hast thou increased thy riches, and thine heart is lifted up, and thou hast said 'I am a god, I sit in the seat of a god, in the midst of the seas.' Tarshish was thy merchant by reason of the multitude of all kind of riches. Many isles were the mart of thine hand, bringing thee horns of ivory and ebony. Syria was thy merchant by reason of the multitude of thy handiwork; they traded for thy wares with emeralds, purple, and broider work and fine linen and coral and rubies. Judah and the land of Israel, they were thy traffickers; they traded for thy merchandise wheat and honey and oil and balm." Then, after mentioning a number of Arabian tribes, the writer continues: "They traded for thy wares in lambs, in rams, and goats; with the chief of all spices and with all precious stones and gold; in choice wares in wrappings of blue and broider work, and in chests of rich apparel bound with cords and made of cedar. When thy wares went forth thou didst enrich the kings of the earth with the multitude of thy riches and of thy merchandise; the ships of Tarshish were thy caravans, and thou wast replenished and made very glorious in the midst of the seas."

It may be said that the Phoenicians were the first to confront the perils of ocean, the first to steer their swift strong ships by the polar star, far beyond sight of land, and the first to make known to other nations that a great world existed beyond the countries bordering on the Mediterranean. In enterprise and ingenuity they surpassed even the Greeks, and were greatly their superiors in commerce science and industries. In the days when brute force was the principal source of national wealth and power, and the only source of national renown, they taught the people of the earth that riches, dominion, and fame could be won by arts as well as by arms, by the peaceful arts of industry and trade as well as by conquest and massacre. Long after Carthage was obliterated by the might of Roman legions, the influence of Phoenician civilization was felt, as even to-day it is felt among the most cultured and opulent of European communities. Let us hope that this influence will increase, and the rage for

standing armies become a thing of the past, the rivalry of nations being diverted from warlike preparations to truer and more legitimate channels.

The naval and commercial supremacy of Carthage was long un- disputed, even by Greece or Rome, her galleys consisting mainly of quinquiremes, with slaves for rowers, but manned by trained and fearless seamen, against whom the Greeks and Romans in their triremes did not dare to contend for the sovereignty of the seas. To the Phoenicians has been attributed the origin of navigation; but however this may be, certain it is that in seamanship they were unrivaled by any of the nations of antiquity. The Greeks themselves, while no unskillful navigators, admitted their superiority, Zenophon, for instance, in his Economics, speaking with approval of the discipline maintained on board their merchant vessels, the vigilance of officers and steersmen, the disposition of the cargoes, and the care with which every inch of space was used to the best advantage.

Tarshish, whence came to Tyre ships laden with the precious and useful metals, was a town and district in the neighborhood of Gades, or Cadiz, and by the Greeks called Tartessus. There was also a river of that name, whose waters, as Strabo relates, contained gold and other metals. Aristotle tells us that the first Phoenicians who touched at Tartessus received so much silver in exchange for articles of little value that their vessels would not contain it; so they left behind them their tackle and made new gear of silver. According to native tradition silver and gold were melted by f ire beneath the surface of the earth, and f lowed forth in such abundance that every hill and mountain was covered with gold. The silver and gold which the rivers brought down were obtained by merely passing the water through sieves, while Diodorus mentions streams of pure silver oozing from the mountains in liquid state. Strabo says that no country in the world was so rich, not only in the precious metals, but in f locks and herds, in fisheries and in corn wine oil and honey.

Among Phoenician sources of wealth were their forests of timber suitable for ship-building, and in their waters the murex and other shellfish from which was produced the famous Tyrian purple, though the latter were not confined to their coast. While the secret of extracting this dye was known to other nations, that which was made by the Phoenicians always enjoyed the preeminence, probably through their superior knowledge of chemical processes.

While laboring, however selfishly, in their own interests, the Phoenicians were also of incalculable benefit to others, kindling a spirit of enterprise among numerous tribes and nations which but, for such awakening, would have slumbered for ages, unconscious of their latent powers and resources. Twelve centuries at least before the Christian era their warehouses and counting-houses extended in one unbroken line westward to the strait of Gibraltar and southward to the strait of Babel Mandeb and the shores of India. Each of them became in time the center of a city and a potent factor of material progress; for the native tribes were not slow to gather around these settlements, attracted by the advantages of civilized life. As the effects of Phoenician culture began to be felt, new needs were developed and especially for manufactured wares, which gave to them comforts and means of refinement of which they had no conception. Presently came the desire to learn the secret and master the art of their fabrication, and thus to utilize the pro- ducts of their country, instead of delivering them in the shape of raw material to strangers who knew so well how to turn them to advantage.

Of the Phoenicians themselves it may be said that nowhere in the ancient or modern world was the craft of the trader and of the money maker so thoroughly understood. The love of riches was not only the keynote to their character but their character itself, the sum and substance of their moral worth.

Doubtless they possessed higher qualities, and especially ingenuity, enterprise, and industry; but for these the greed of gain was the motive and sustaining power, since to them success meant only wealth, and wealth was their pride and delight.

The Lord giveth the power to get wealth. The Lord maketh poor and maketh rich. Both riches and honor come of thee. A little that the righteous man hath is better than the riches of many wicked. Surely every man walketh in vain show; surely they are disquieted in vain; he heapeth up riches and knoweth not who shall gather them. Be thou not hen one is made rich, when the glory of his house is increased; for when he dieth he shall carry nothing away; his glory shall not descend after him: though while he lived he blessed his soul and men will praise thee when thou doest well to thyself. If riches increase set not your heart upon them. He becometh poor that dealeth with a slack hand, but the hand of the diligent maketh rich. They that trust in their wealth and boast themselves in the multitude of their riches, none of them can by any means redeem his brother nor give to God a ransom for him. The generation of the upright shall be blessed; wealth and riches shall be in his house and his righteousness endureth forever. The rich man's wealth is his strong city; the destruction of the poor is their poverty. The rich man's wealth is his strong city, and as a high wall in his own conceit. Wealth gotten by vanity shall be diminished, but he that gathereth by labor shall increase. Wealth maketh many friends, but the poor is separated from his neighbor. Riches profit not in the day of wrath, but righteousness delivereth from death. The blessing of the Lord it maketh rich and he addeth no sorrow with it. There is that maketh a himself rich yet hath nothing; there is that maketh himself poor yet hath great riches. The poor useth entreaties, but the rich answereth roughly. He that loveth pleasure shall be a poor man; he that loveth wine and oil shall not be rich. Labor not to be rich: cease from thine own wisdom; for riches certainly make themselves wings. The rich man is wise in his own conceit, but the poor that hath understanding searcheth him out. Remove far from me vanity and lies; give me neither poverty nor riches; feed me with food convenient for me. There is a sore evil which I have seen under the sun, namely riches kept for the owners thereof to their hurt; but those perish by evil travail, and he begetteth a son and there is nothing in his hand. Let not the rich man glory in his riches. He that getteth riches and not by right shall leave them in the midst of his days. He hath filled the hungry with good things and the rich he hath sent empty away. Woe unto you that are rich I for ye have received your consolation. How hardly shall they that have riches enter into the kingdom of God; for it is easier for a camel to go through a needle's eye than for a rich man to enter into the kingdom of God.

A little more than a century and a half after the downfall of Carthage there lived, as Tacitus relates, "a man called Christ, who was crucified for stirring up sedition in Judea." Thus does the great historian, beyond dispute the greatest of his age, if not of all ages, dismiss a theme which for well-nigh 2,000 years has stamped its impress on the better part of the civilized world.

Although today the Israelites are a people without a country, or rather a people of all countries, it was not always so. In the twilight of civilization we find them conspicuous among the nations cradled in the fertile region watered by the Tigris and Euphrates,—Palestine, their last home is called, the land of Israel, the land of Canaan, where Abraham dwelt, where Christ was born, where stood Jerusalem, the city of David and Solomon. Here was a country flowing with milk and honey, the country of the olive and the vine, where grew all else that is good for the use of man. During the earlier centuries the Jews considered agriculture and horticulture as the normal occupations of the human race, and to dwell in peace under his vine and fig-tree was the ambition of the Israelite. There was little commerce, and such arts and industries as existed were confined to domestic requirements. But presently came increase and the acquisition of large estates, to the detriment of peasant holdings, as is shown in the frequency of mortgages.

Thus was formed a wage-earning class; and some there were it seems who could not or would not earn a wage; instances arc not rare where Hebrews sold themselves into bondage.

Wealth was not lacking among the ancient Hebrews. Some of the patriarchs had great possessions. Noah was a man of means before the flood, else he could not have had men and material at command wherewith to build and stock the ark. With Adam in Eden the case was different. With all the world his property and paradise for a pleasure-park, with the heavenly host for society and absolute dominion on earth, though the greatest of capitalists, he could hardly be called a wealthy man. There was present no purchasing power; there was nothing to buy, no one to buy from, and none to whom he could sell. Even were it possible to establish commercial intercourse with the brute creation, the brutes and all that they might possess were already his. Thus though he owned all and might enjoy all, he could go no further, and in respect of property capable of accumulation was no better off than the birds of the air. It was only after the creation of other beings like himself, after the so-called curse of labor was imposed, that wealth began to be. When through disobedience Adam and Eve became ashamed, then for the first time was there work to be performed. Throughout creation there was no such a thing as a fig-leaf apron fashioned in readiness for use; nor with all the possessions of her husband at command could Eve call in a seamstress and pay for having it made. After their expulsion from the garden, with its rivers of life and spontaneous food production, after children had come and been compelled to toil, then came traffic and value in possession, which is another name for wealth, as Cain for instance might barter with Abel the fruits of the earth for sheep, and both be benefited by the exchange. It was through labor and the necessity for labor that wealth originated; work, which was sent as a curse, but was no curse, being the creator of wealth, itself also sometimes erroneously termed a curse. Thus it is that the accumulation of necessaries and luxuries begins with the beginning of progress.

It is worthy of note that the first use of animals made by man, following the Hebrew record, was not to harness them to labor, but to slay and offer them as a propitiation to the being who created them; since which time, animals following the example of man, it has been in order for the strongest to prevail. As applied to man, whether in the history of nations or of individuals the survival of the fittest

generally signifies the survival of those possessed of superior power or cunning; and this applies to political and social no less than to financial affairs. Progress is one of the first laws of nature and the increase of that which is best of its class is a fundamental law of progress. Notwithstanding the creator saw that his work was good, he was not content that the world should remain as he had made it. He commanded first of all that plants and animals, in common with mankind should be fruitful and multiply augmenting the original stock, the distinguishing features between the brute and human creation being that the one was made content with sufficient for immediate requirements while with the other accumulation was constituted an instinct which was often to become a passion. Certain it is that the former can at least claim priority of occupation; but just as to plants was given the soil, and to animals were given the plants, so to man, with his superior intelligence, was given the dominion over all.

Noah after the deluge was somewhat as was Adam in the first instance; all was his and the sub-division of property must begin anew. With the increase of population, as the years grew into decades and the decades into centuries wealth also increased. Babylon, Nineveh, and other great cities were built, in which were many rich men, but of whom little is known. Too rich and presumptuous, indeed, they became, ready to defy even their creator and ascend heavenward without his aid, whereupon they were scattered by a confusion of tongues, and sent to people the remoter parts of earth. So at least runs tradition. Convenient at hands for the first comers to this plant, gold was sprinkled along the rivers flowing from Eden, so that with the advent of natural wealth there might be the wherewithal to measure it. But there is no mention in the Hebrew scriptures of such use of the metal until the days of Abraham who is the first one therein spoken of as a rich man, a very rich man, not only in cattle but in silver and gold. Lot, his associate for a time, was likewise well to do, until a dissolution of partnership was forced upon him, after which his fortunes declined. The first recorded exchanges of cash for land in Hebrew story was the purchase from Ephron of a burial place by Abraham, after he had become a mighty prince, the price being 400 shekels of silver, current money with the merchant. Isaac inherited his father's wealth and increased it, bequeathing all he had to his younger son Jacob, who purchased his elder brother's interest in the estate for a mess of pottage and manipulated with rather doubtful integrity the flocks of Laban entrusted to his care. It would seem to us of these modern times that where land and labor were so abundant, flocks and herds might be secured, and women married as well, without resorting to trickery; yet so may they say of us who shall come after us.

Joseph prospered in Egypt; but his descendants fell into distressful circumstances, and so remained until they escaped from the country and crossed the desert and the Jordan river, since which time there have never been lacking rich men of the Hebrew race. By predatory raids while in the desert, and the seizure of property in the country which they entered, they added largely to their possessions. They had then 600,000 fighting men, and they took from "the Midianites alone 675,000 sheep, 72,000 oxen, 61,000 asses, besides jewels of gold, chains and bracelets, rings, earrings and tablets" worth in all some $3,000,000. But this was as nothing compared with what they secured as spoils from the conquered nations in and around Canaan, that is to say Phoenicia.

The Hebrews, it may be remarked, appear to have been more backward in their affairs than the Egyptians, for while the Hebrew work of creation was still in progress, the Egyptians were reclaiming swamps and building cities; while Adam was yet living and lamenting his folly.

Khufu was building his pyramid and Khafra was carving his Sphinx; while Methusaleh was almost completing his millenary of life in Arabia and the Sinai Peninsula, the Egyptians were working the copper mines and quarrying the granite of Elephantis; while Noah was preparing for his flood. Usirtasin was advancing Egypt to the highest pitch of prosperity and power.

Nevertheless during the later centuries of the first 3,000 years of their history, which brings us to the days of Solomon, the Hebrews were an affluent people, though it may be that in this regard a more favorable conclusion is reached because more is known of them than of contemporary nations. Solomon at least, after allowing for all exaggerations as to the story of his wealth, was a very rich man, and would have been so accounted in any age or country whose annals have come down to us. True there was but one such as Solomon, whether Jew or gentile; but where such wealth as he possessed was possible there were doubtless other rich men not far away. There was, as we have seen, great wealth in Egypt in the time of the Pharaohs, and we know not of all that was there before and since; for of Egypt there are authentic records at least 6,000 or 7,000 years before Christ, while the beginning of Hebrew history antedates the Christian era only by forty centuries.

King David, besides being one of the most devout of men, was also a warrior poet and statesman; but that he ruled over Israel was the smallest element in the greatness of Solomon, who ascended the throne before his father's death not by right of inheritance but through intrigue.

Because he asked of the Lord wisdom instead of wealth, both were granted to him and he became, besides, a writer of proverbs and songs. His household was an army; his table was loaded with gold plate, and he had stalls for 40,000 horses. There were 150,000 men at work at one time on his temple in addition to the laborers furnished together with materials, by Hiram, king of Tyre the plans being also modeled on Tyrian designs. By David extensive preparations had been made for the building of this sanctuary. Making war on neighboring nations he took from them gold, silver, and other spoils of untold value, and to this he added from his private means, and from public sources, all of it being given to Solomon for the temple which he was to rear unto the Lord in Jerusalem, together with the great citadel that he erected with the temple as its central figure. Gold and other metals entered largely into the construction of the former, which was a small but beautiful structure, 100 feet long, apart from its precincts, 34 in width and 50 in height. Timbers from the cedars of Lebanon were hewn in the forest, and stone prepared in the quarry, so that when brought upon the ground the several parts were fitted together without the sound of hammer or other tools. It is found so ordered in Deuteronomy, "Thou shalt build the altar of the Lord thy God of whole stones; thou shalt not lift up any iron tool upon them." The doors were overlaid with gold and the walls were covered with plates of gold, and drapery of fine linen, blue and purple and scarlet. As a covering for the ark, in the holy of holies, were cherubim of gold fifteen feet in height, with outstretched wings in contact.

For the altar of incense was a chamber of cedar covered with gold, and on the table were many vessels of silver and gold and many golden candlesticks. On either side of the porch were hollow pillars of brass 20 feet in circumference, embossed by Tyrian artists in lilies and palms, with 200 pomegranates in double rows.

A new wall with fortified towers was thrown around the city, and among other great buildings was the house of the Forest of Lebanon, connected with which by a cedar porch was a hall named the Tower of David, on its outer walls a thousand sheets of gold. Within sat the monarch in imperial splendor, passing judgment on all matters that came before him with marvelous wisdom and sagacity. The

shields and targets of his body-guard were also of gold, as were the vessels used at his banquets, the cups being set with precious stones, Many palaces he had, with parks and gardens that enchanted the eye of the beholder; for in the days of Solomon Israel waxed exceeding rich, and reached the climax of her power and her glory.

No wonder that even the queen of Sheba, herself one of the richest of women was surprised at the wealth and glory of Solomon, whom she presented with gifts valued at $6,500,000. His annual income at this time was estimated in gold alone at $36,000,000, besides what he acquired from traffic with Arabia, Egypt, and elsewhere; for, notwithstanding his wise maxims regarding riches, Solomon was a shrewd trader, buying in the cheapest market and selling in the dearest, importing for instance from Egypt horses and chariots which he sold at a goodly profit to the kings of the Hittites, while his fleets, in conjunction with those of Tyre, diverted the little that remained of Egyptian commerce.

Then there were his Ophir and other mines, from which, it is said, a single shipment amounted to $2,000,000, thus making gold abundant and silver so plentiful that it became "as stones on the streets."

With all his wisdom, Solomon was likewise a lover of women which weakness, if it be a weakness, seems never in itself to have been accounted unto him for unrighteousness, though resulting in his spiritual undoing. No need in his case of the maxim cherchez la femme, for his women were sufficiently plentiful to be found without much seeking. Seven hundred wives he had and three hundred concubines or a thousand in all, and among them many princesses. But if in his harem he sought to outdo all other eastern monarchs, and especially Pharaoh, his father-in-law, he was by no means unmindful of the welfare of his country, and especially of Jerusalem, which in his reign became a strong and magnificent city, its splendor never equaled in the days of his successors or of his predecessors. Without regard to tribal distinction, he divided his kingdom into provinces, placing a ruler over each and establishing a vigorous and well-ordered system of administration, though more, it must be confessed, for the benefit of his exchequer than for the benefit of his subjects, requiring from all enforced labor, money, and tribute in kind.

While this system did not survive its founder, his fame was none the less that no rival afterward appeared under whom the throne of Israel shone with such resplendent glory.

In contrast with the uniform prosperity of Solomon was the checkered career of Job, who was probably his contemporary, and certainly did not live in an earlier age, if indeed he lived at all in the flesh, and not as the embodiment of ideas from which Israel might forecast her history and take courage after her afflictions. But accepting the former theory, Job was a man of large possessions, and when temptation came to him, it was not as with Solomon, in the fascinating form of woman, but from the devil direct. After depriving him of his family and all else that he possessed, Satan sent him sore afflictions and told him to curse God for them. But Job would not, and as a reward for his probity and patience his riches were finally returned to him doubled in amount.

Turn now from the Bible to the Talmud, and the Mishnah, in which, in addition to rabbinical interpretations of scripture, with the sayings and doings of the patriarchs, are discussions on religion and jurisprudence, historical and scientific treatises, and other topics making a storehouse of early knowledge. Here are also biographical sketches of prominent men, both biblical and post-biblical; of

those who distinguished themselves in doing battle for the Lord of hosts and of those who, became famous by reason of their learning or riches.

Ten measures of wisdom, says the rabbis, came down to the world, of which Israel appropriated nine and the rest of the world one. Ten measures of beauty came down to the world, Jerusalem taking nine, and leaving one for the remainder of mankind. Ten measures of wealth came down to the world, Rome appropriating nine, and of ten measures of poverty all but one fell to the lot of Babylon. While doubtless the rabbis were not partial to Babylon, especially after the destruction of Jerusalem by Nebuchadnezzar, it is nevertheless an historic fact that at the time these sayings were penned, the one was the richest and the other the poorest of all the cities on the face of earth. But with cities and nations, as with individuals, the rich become poor and the poor rich.

Of the many rich men described in the Talmud, Korah, the antagonist of Moses, was one of the richest; so that even today his wealth is proverbial among the Jews. This is hinted at in the biblical book of Numbers, in the passage which states that "he and all his goods were swallowed up;" but in the Talmud are further and more interesting data. It is there declared that for many centuries there were but two men in the world who became exceeding rich,—Korah of the Hebrews and Haman of the gentiles, both of them perishing because they acquired their possessions by greed, and not as a gift from the Lord. There also it is stated that all the gold and silver which Joseph gathered and stored in Egypt was divided into three parts and concealed in three places, one portion being discovered by Korah, another by Antonius, son of Asoirus, while the third is still preserved for the use of the righteous in the world to come. The use the righteous would make of it where the streets are paved with gold, the Talmud does not explain; but doubtless their share was large; for as the rabbi Levi declares, 300 mules were required for carrying merely the locks and keys of Korah's treasure.

From the land of Ophir, wherever that may have been, both Solomon and Hiram derived a large portion of their enormous wealth. While its location has been variously placed in Armenia, Arabia, Africa, India and even in Malay and Peru, the balance of testimony is in favor of the scriptural account, which places it as a province on the Red Sea, either adjacent to or forming a portion of Ethiopia. Here also, beside Eloth on the shore of that sea, as related in Kings, was the port of Ezongeber, where were built the fleets of Hiram and Solomon the nature of the presents which they brought—gold, precious stones, ivory, almug trees, parrots and apes—all pointing to Africa. By some authorities the gold of Sheba mentioned is in the Psalms of King David, considered as identical with the gold of Ophir, the word Sheba, as when read from right to left, in the ancient Ethiop language, being almost identical with Habesch, an Arabic word which the Portuguese Latinized into Abassia, the modern Abyssinia.

The riches acquired by Solomon were lost during the reign of Rehoboam after the revolt of the ten tribes when Shishak, king of Egypt, marching against him with an innumerable host, carried away the treasures of the temple, capturing "the fenced cities which pertained to Judah." Thenceforth Jerusalem was shorn of her prestige as a political power, never again to rise, though later increasing in wealth and magnitude.

New quarters were added; among them a tiding quarter occupied by Tynans, who formed a large portion of the business population, the main body of the town being grouped around the slopes of the temple hill, where the houses rose tier above tier in steep and narrow streets. As to its gates and towers, and the compass of its walls, a detailed account is given by Nehemiah, whose description,

however, is somewhat difficult to follow. He it was who restored the fortifications destroyed by Nebuchadnezzar, following the lines of the city as it existed before the destruction when the temple and palaces were burned to the ground, and the remnant of the population led into captivity, except the very poor, who were left to tend the vines and till the ground, a few held in special favor, as Jeremiah the prophet, being also exempt from bondage. Then comes a blank in Hebraic records, of which it need only be said that under Persian and other domination the people enjoyed but little prosperity. Spared by Alexander the Great, their capital or its defenses were several times destroyed, as by Ptolemy Sotor and Antiochus Epiphanes, yielding soon after its siege by Pompey to Herod and the Romans.

Except during the reign of Solomon, and perhaps of the Maccabean princes, Jerusalem was never so great as in the days of Herod and his successors, by whom the city was enlarged far beyond its former proportions, and its aspect changed, especially in the quarters where stood the temple and the royal palace. The former, Herod rebuilt from the foundation, with walls of great strength and height and more than redoubled area. According to Josephus, himself a priest and an eyewitness of what he describes, there were three porticos, 55 feet in width, with monolith pillars and cedar roofs, one of them resting on the substructure laid by Solomon, and hence called Solomon's porch. By four rows of Corinthian columns the remaining portico was divided into spacious loggias 600 feet in length. For the Holy of Holies the dimensions of the ancient temple were followed, except that a second story was added, with a porch 185 feet wide and as much in height, its doorway overlaid with gold, and containing a golden vine with clusters several feet in circumference.

Some fourscore years were required to complete the vast and costly structure begun by Herod and continued by those who came after him; so that the city was almost built anew, while its temple, attracting the devout of distant lands, made of it the Mecca of later days. Thus it stood when Vespasian, son of a usurer and emperor of Rome, who as Tacitus says was equal to the generals of old except for his avarice, made war on Judea, now broken out in revolt.

Titus, his son, he left the task of ending the war by the capture of Jerusalem, and this he accomplished after one of the most memorable sieges recorded in history. Forcing the outer walls, more than three miles in circumference according to Eusebius, his battering rams approached the citadel of Herod, which even then would not have yielded had the Hebrew leaders stood to their post. But once more the city and its temple were destroyed, the Tower of David being all that now remains of the Jerusalem of olden days, while the arch of Titus still spans the Sacra Via of the Roman capital.

A disastrous war was that which befell the Jews during the reign of Hadrian, caused by the founding of a Roman colony on the site of the holy city. Presently came the stream of pilgrimage, swelling into the proportions of a flood; for the discovery of the holy sepulcher and the erection by the first Christian emperor of magnificent churches on its site and over the cave of nativity again made Jerusalem a religious center, its sacred places regarded with more veneration than was the temple in the days of Solomon.

When the caliph Omar obtained possession of Jerusalem, he permitted no violence to the persons or property of its citizens, and granted them freedom of worship, on condition only that Mohammedans be admitted to their sanctuaries, pilgrims still passing to and fro without injury or molestation. But after the 10th century the Moslem yoke sat not so lightly on Palestine, and then came Peter the hermit and the crusades, whose history need not here be followed. Though accompanied with monstrous

deeds of iniquity, as the slaughter of Saladins 3,000 hostages in default of the payment of 200,000 pieces of gold, their effect was in the main beneficial, resulting as they did in the abolition of serfdom and the feudal system, and the substitution of the common law for the separate jurisdiction of barons or chieftains.

As seen from the Mount of Olives, the most conspicuous portion of Jerusalem is the haram, or remains of the ancient temple enclosure, as it existed in the days of Herod, but with buildings of more modern date. Adjacent to the enclosure is the Jewish quarter, with its domed and stately synagogues, and next to this the Armenian quarter, where is the church and convent of St James. In the Moslem portion, to the north, is the tall minaret of Omar's mosque, and in the Christian portion the rotunda of the Holy Sepulcher, the protestant church, and the palace of the protestant bishop. Yet these four quarters are by no means restricted as to sect or nationality, many wealthy Jews and Christians residing in the Armenian and even in the Mohammedan section.

The resident population of Jerusalem, though doubled within the last fifteen and quadrupled within the last thirty years, does not exceed 45,000, of whom more than one-half are Jews, the Moslem and Christian elements being about equally divided. During Easter thousands of pilgrims throng the narrow streets, and at this season the city of David is of all cities the most cosmopolitan in appearance. There are Syrian peasants with their yellow turbans and hooded Armenians with their bright and red sashes intermingling with European tourists while turbaned Turks, Hebrews in oriental costume, and the long-haired monks of the Greek church are among the many nationalities and religions represented.

And so it is with the city architecture which is in many styles, Oriental, Byzantine, Gothic, and Italian—all attesting that Jerusalem is still, as for many centuries it has been not only a religious center but a center of ecclesiastical art.

If the Talmud is correct, there were many rich men in Jerusalem when the Romans laid siege to the city, three especially being mentioned, Nicodimon, Calba, Shebhua, and Tsitsis Hacksath. Nicodimon or Shining, was so called because the Lord made the sun to shine in answer to his prayer. When the people went up to Jerusalem to celebrate one of their feasts, there was a drought in the land and the multitude had no water to drink. Thereupon Nicodimon asked of a certain noble the loan of twelve cisterns of water, to be returned on a given day in good condition and filled to the brim, failing which the latter was to receive twelve talents of silver. But the drought continued, and when the day arrived the sky being cloudless as it had been for more than a twelvemonth, the noble demanded his cisterns or their equivalent. "Wait until evening," answered Nicodimon, who toward sunset entered the synagogue wrapped in a sacred garment and thus made supplication: "O Lord of the universe! thou knowest that I have done this not for my own sake, neither for the glorification of my father's house, but for thine own glory." Immediately the heavens were overcast; rain fell in abundance, and the cisterns were filled to overflowing. Nicodimon demanded payment for the overflow; but to this the other objected on the ground that the surplus had fallen after sunset. Then Nicodimon returned to the synagogue and again he prayed; "O Lord of the universe! accomplish thy miraculous work in the same manner as thou hast begun." Instantly a strong wind arose, dispersing the clouds, and again the sun shone forth. Calba Shebhua, that is to say the Satiated Dog, was so named because the poor who came to him hungry as hounds never left his dwelling until their wants were satisfied. When Jerusalem was encompassed by the Romans, he purchased sufficient grain to feed the inhabitants during a

protracted siege. "I will supply the people of Jerusalem with food," he said; "and I with wine and salt," responded Nicodimon; "and I will furnish them with fuel," said Tsitsis Hacksath. But these and other stores were destroyed by the zealots, thus adding famine to the horrors of the beleaguered city. Of Martha, daughter of Baithus, the richest woman in Jerusalem at the time of the siege, it is related that she sent her servant to market to purchase fine flour. Returning he said that all was sold, but that white flour might still be had. "Then so and bring me white flour," answered his mistress. Again he was too late, reporting that only barley meal remained. But at his third visit even this was exhausted; and so with bran and all else that could serve as food. Then said Martha, "I will go myself and try whether I cannot find something to eat." On her way she picked up a fig which had been thrown aside, and this she ate, being faint with hunger, and thereby came to her death, for the fig was poisoned. When about to die, she ordered that all her gold and silver should be cast into the street, that those might take it who would, since it was of no further use to her.

For had not Ezekiel said, "They shall cast their silver in the streets and their gold shall be removed; their silver and their gold shall not be able to deliver them in the day of the wrath of the Lord; they shall not satisfy their souls, neither fill their bowels?" The Talmud tells also of the richest of rabbis, Eliezer ben Harson, possessor of 1000 cities and 1000 merchant ships, and others.

As the history of Palestine revolves largely round the Christ, so Mohammed is the central figure in the annals of Arabia. Both claim descent from Abraham, the former through Isaac and the latter through Ishmael. Both were born poor; but while the one remained poor, the other became rich through marriage with a wealthy merchants widow by whom he had been employed. By both religions were founded; Christ preaching self-abnegation and peace, Mohammed self-gratification and the sword. Then followed tidal waves of fanaticism that swept through Europe and Asia during the dark age, leaving behind them the ashes of Dead Sea fruit.

It was not until early in the fifth century that the Koreysh appear in Arabian annals. They were among the most crafty of Arabs, and at the time, partly by cunning and in part by force, had made themselves masters of the Kaba or sacred shrine in Mecca, where for ages pilgrims had left their offerings of gold and silver and precious stones. They were also the shrewdest of merchants, and largely through their operations Mecca became the principal seat of inland trade, and Jiddah, not many leagues away, the leading seaport of the western coast. Within a day's journey of Mecca was held the great fair of Okad, which apart from its business features was almost in the nature of a national exhibition, with amusements of many kinds, poetic recitals and oratorical declamations, horse-racing and athletic games. Here also, in what may be termed the amphictyonic council of Arabia, one no less ancient and far more potent than that which was held in classic Thebes, were decided questions of gravest import, as of treaty and alliance, of peace and war, of justice and reprisal. In all these matters the Koreysh chieftains were prominent, not only by reason of local proximity but on account of their wealth, influence, and superior ability.

Thus when Mohammed first appears as a prophet in Mecca, about the year 610, it had become the commercial as well as the religious and political center of Arabia, with a merchant aristocracy whose trade was as far-reaching as it was profitable. While under Mohammedan rule it declined somewhat in importance; in the time of the earlier caliphs vast sums were lavished on the sacred city, to which the main body of pilgrims was led by these dignitaries in person. As late as the twelfth century it had still a large volume of traffic, especially during the yearly festival, when its marts were filled with

merchandise from every portion of the Moslem world, presenting the appearance of a great international fair. But then, as now, the principal source of revenue was the annual pilgrimage, large sums of money passing into the hands of contractors, brokers, guides, keepers of stores and lodging-houses, and semi-vagrant hangers-on at the holy places. The religion of the citizens of Mecca was ever an affair of the purse, and its vices the wonder of the devout strangers; for here were centered all the iniquities of humanity, and in aggravated form. Slavery was a favorite institution of the Arabs, as even today it is, and in guise of pilgrims were large numbers of kidnapped slaves.

The great mosque, the goal of the pious pilgrim, was built mainly by the caliph El Mahdi, who expended large sums in bringing from Syria and Egypt hundreds of costly pillars. Of these but few remain, and little of the former workmanship, though there are more than 500 pillars in all, of various designs and dates, with twenty arched entrances to the surrounding enclosure, which is about 600 feet in length and somewhat less in breadth. Close at hand is the Kaba, originally a rough stone building, erected as Islam claims by Abraham and Ishmael for the worship of the one God whose prophet is Mohammed, and who cast out the idols from the sanctuary. Except in certain details—the placing, for instance, of courses of timber between the stones, as in Solomon's temple— its ancient form has still been preserved, at least as to exterior aspect, though several times rebuilt. In one of the corners is the famous black stone, the principal object of veneration, delivered to Abraham by the angel Gabriel as the Mohammedans believe, but probably one of many fetiches worshipped in earlier days. The floor was of marble in richly variegated hues; its roof veiled with silk and its walls partially covered with silver, over which was a plating of gold, with windows of stained glass and silver lamps depending from pillars of teak. The Kaba was opened only on special occasions, and when these occurred it was quickly filled with a nondescript multitude of pilgrims and mendicants, the prayers of the faithful intermingling with discordant outcries of backshish. Around the sacred spot were the dwellings of the wealthy and the nobles, some of them tracing their descent back to the time when the city was founded.

Medina, or to use its full name, Medinat Kasul Allah, apostle of God, was the burial place of Mohammed, as Mecca was his birthplace, and thus became a goal of Moslem pilgrimage. Like Mecca, it depended and still depends largely on pilgrims for support, maintaining a population far in excess of what its legitimate business would justify. Here, as at Mecca, the devout were subjected to many extortions and discomforts; but these they bore with patience and resignation; for is it not written in the Koran, "all things that are, are well," though some, saith the prophet, are disagreeable? The glory of Medina is its mosque, an imposing structure with lofty dome and minarets, the effect of which is impaired by the narrow lanes and crowded dwellings which surround it. As first erected it was a low brick edifice, roofed with branches of palm, the pulpit from which Mohammed preached standing on the spot where it yet stands. Early in the eighth century it was entirely rebuilt by order of the caliph Walid, who had at his command the most skillful of Greek and Coptic architects and artificers. In style it was of the Byzantine order and in form hexagonal, the outer walls decorated with parquetry and the inner with mosaic arabesque, its marble pillars being crowned with gilded capitals. No trace of it now remains; for it was twice destroyed by fire, the building which took its place being of Egyptian type and far inferior workmanship.

Mohammed was a zealous proselytizer, his doctrines, his persecutions, his struggles, and his ultimate triumph; his wars, in which defeat and victory alternated, though finally crowned with success, bearing ample testimony. He seems to have had less trouble in the manipulation of his miracles, than

in his management of the Meccans, who would at first have none of his teachings, and with whom he had long and continued controversies. To his uncle, Abu Talib, who though himself a believer urged him to withdraw from his mission as a matter of policy, he replied: "Though they give me the sun in my right hand and the moon in my left to bring me back from my undertaking, yet will I not pause till the Lord carry my cause to victory, or till I die for it." This occurred only a few years before the hegira in ad 622, from which year dates the Mohammedan era. After his death in 632, the empire, which then included and extended beyond the entire peninsula of Arabia, passed into the hands of the caliph who bore toward the prophet almost the same relation that in the catholic world the supreme pontiffs bear to St. Peter, but also with supreme authority in civil matters and as commander- in-chief of the Muslim armies.

For well-nigh six centuries and a half the caliphs reigned over the kingdom of Mohammed, the earlier rulers extending their domain into Syria, Egypt the entire northern, coast of Africa, the islands of the Mediterranean, and even into France and Spain, which latter country was almost reduced to an Arabian dependency. By Almansur was founded the city of Baghdad in 760, and thither the seat of empire was removed at first a substantial and afterward merely a nominal empire; for province after province fell away, and the caliphs became mere puppets in the hands of the Persians, until in 1277, or as some have it in 1258, their capital was stormed by Hulaku the Tartar, grandson of Genghis Khan, by whom were extinguished all traces of this crumbling dynasty.

In modern Baghdad, now a portion of the Turkish Empire, are nearly 200,000 people, representing many nationalities, though the town is situated on the verge of a barren plain with hardly a tree in sight. The old quarter, on the western bank of the Tigris, is but a suburb of the present city, which stands on the opposite shore, connected by a bridge of pontoons. Both were planned, if they can be said to have a plan, with little regard to symmetry or convenience. The streets and alleys are tortuous, unpaved, and so narrow in places that two horsemen cannot ride abreast. Houses constructed of bricks taken chiefly from the remnants of ancient buildings present to the public thoroughfares a bare and almost unbroken surface of wall, windowless and with but the merest apology for doors. In the center is a spacious court; on the terraced roof the inmates sleep and take their evening meal and beneath are underground chambers, affording shelter from the fierce summer heat, the thermometer reaching at times 120 degrees in the shade. The homes of the wealthy are luxuriously furnished and surrounded with lawns and flowerbeds, vineyards and orchards, giving to Baghdad, as seen from a distance, the appearance of a city of gardens and groves rising from a treeless desert.

As in all Muslim towns, the mosques are the most conspicuous features and of these there are more than a hundred, though many are little better than chapels. The most ancient and also one of the plainest and most unsightly, is that which was built by the caliph Mustansir in the year of the hegira, and of which there still remain its minaret and fragments of the exterior walls. A more elegant structure is the mosque of Merjaneeah, with its tall arched door bordered with richly sculptured bands, and its arabesque designs of fourteenth century execution. To the seventeenth century belongs the Khaseki mosque, formerly, it is said, a Christian church, its prayer niche spanned by a Roman arch with fluted shafts and sculptured frieze, while on a background of white marble is one of the most finished specimens of oriental workmanship in tracery of flowers and vases. Numberless are the glazed and painted domes and minarets with decorative scheme in white and green, imparting a cheerful aspect, but with none of the dignity and stateliness noticed in the towers of Aleppo and Damascus.

Adjoining the Merjaneeah mosque, and formerly a part of it, is the khan or caravansary of El-Aourtmeh, of fourteenth century architecture, with vaulted roof of Saracenic design. Of the other caravansaries, thirty or more in number, all are of inferior workmanship; and so with the bazaars, most of which are roofed with straw or branches of trees resting on a substructure of beams, and presenting an air of squalor and poverty unusual to Turkish communities. Yet Baghdad was for centuries the chief emporium of eastern traffic, and of late has developed a considerable trade with European centers.

Muscat, now the chief city in the kingdom of Oman, is one of the most ancient of Arabian settlements, though of little importance until after its occupation by the Portuguese, early in the sixteenth century. Still in existence and supplying the town with water is the well from which vessels on their way to China replenished their casks more than a thousand years ago.

Here also the Portuguese cathedral, though in ruins, towers above narrow and filthy streets, dilapidated dwellings of sun-dried brick or mud, and bazaars of most uninviting appearance. Nevertheless the place has a considerable traffic, with exports and imports exceeding $6,000,000 a year, while the position of its harbor with reference to the commerce of the Persian Gulf and the Arabian Sea makes it the leading and indeed the only important seaport on the eastern coast. Including its more prosperous and respectable suburb of Matrah, the population is estimated at 75,000, including many of African blood or in part of African descent; for here in former years was a favorite rendezvous for the slave trade.

Aden was a flourishing seaport before the opening of the Christian era. Though situated on a barren peninsula composed mainly of volcanic rocks, and connected with the mainland only by a strip of sand, the advantages of its position for trade and as a military stronghold caused its occupation by the Romans as early as 24 BC. At the beginning of the sixteenth century it was a Portuguese possession, and a few years afterward fell into the hands of the Turks, by whom in 1839 it was transferred to the British. Later it became a free port and the strongest of modern fortifications were added to those with which it is provided by nature in the form of precipitous cliffs. Apart from its importance as a coaling station on the highway to the east, its business is very considerable; but chiefly in the transit of goods. In the same province—that of Yemen—is Mocha, now merely a village, but with traces of former greatness in the shape of ruined castles, minarets, and other imposing structures. In the sterile plain which surrounds it neither coffee nor anything else is produced, the term Mocha coffee in its proper sense referring to the article which was shipped there and thence during the days of its prosperity. In this connection may be mentioned the Somali coast and the Socotra, Kuria Muria, and Bahrain islands, all of them under British protection, the pearl fisheries of the last yielding at the rate of more than $1,000,000 a year.

Muslim institutions, while adapting themselves to changing conditions with the growth and decadence of the empire, were chiefly founded on such as were prescribed in the Koran. By the caliph were administered the public revenues gathered from the poor-rate which all must pay, from the land and poll-tax imposed only on those who had belonged not to Islam and from the fifth of all booty taken in war, the remainder being distributed among the warriors. These were applied to public works and military requirements to the salaries of officials, to the relief of the poor, or to the payment of annuities or pensions to which all true Muslims were entitled, the amount varying in accordance with the nearness of their relationship to the tribe of the prophet. Thus to her who had been his favorite

wife was assigned a pension of about $2,400 a year; to his remaining widows and to members of his household $2,000; to those who had been first to embrace the faith $1,000, and to all others of the faith from $60 to $800. Here is the main secret of the success of Mohammedanism; for in accepting this religion the convert at once acquired the right to a pension, with exemption from land and poll-tax,—immediate material benefits not to mention those which were to come.

The poll and land-tax were graduated, the former in accordance with the possessions of the subject, and the latter in relation to the extent and fertility of the holding. The state itself was a large holder of land, with sufficient pasturage in the time of the earlier caliphs for 40,000 horses and camels.

In the desert were many browsing places for camels, and on the hillsides food for horses, cattle, goats, and sheep. The horse, by some believed to be indigenous to Arabia, here attained its highest development, not as to size and speed but in endurance, docility, and strength and symmetry of form, a thoroughbred travelling thirty-six hours without intermission and without requiring water. It is seldom that an Arab horse of the best and purest breed exceeds or even reaches fifteen hands in height, and the swiftest among them would be easily distanced by a European or an American racer. Still, as for fourteen centuries at least those of the best quality are to be found in greatest numbers in the habitable districts of central Arabia; yet even here they are by no means a common possession nor used for common purposes. For the most part they are the property of chiefs or of wealthy personages, selected and reared as investment for capital or as appendages of rank and seldom even used except on special occasions. Thus we hear of Wahhabee chieftains who in times not long gone by owned several thousands of the finest animals in the world, such as have not degenerated, though perhaps not improved since Yemen first became famous for its Arab stock.

Next to the horse in value and greatly superior in utility is the camel, which is also a common standard of prices and a medium of traffic and investment. The swiftest and most docile of dromedaries, such as are used only for riding, are worth as much as $500 each, while an ordinary pack animal may be bought for $75 to $150 and one that will serve as a beast of all work for $50 or less. Camel's flesh and camel's milk are staple articles of food, though the former is musky in flavor, and if possible more tough and tasteless than the poorest quality of beef. Clothing is made of the hair or wool, which in some varieties is softer and finer than that of the sheep. Serving so many purposes and living as it does on anything that comes in its way, thus costing nothing for its support, no wonder that the camel is prized by the Arab above all other possessions. Cattle are not over-plentiful; but smaller stock, especially sheep and goats, form an important element of Arabian wealth.

Agriculture was hardly more primitive in the ninth century than it is in the nineteenth. Still the plows are entirely of wood, barely scratching a soil which under proper cultivation would yield in parts two abundant crops a year. Heaping is performed by the sickle, and sometimes by hand; for threshing oxen are used, and for grinding the rudest of hand-mills. Dates are to the Arab the staff of life, and of these there are more than a hundred varieties. Coffee is next in importance; vegetables and garden plants are raised in many districts, and of cereals there are enough for home consumption, but seldom with a surplus for export. Irrigation is general; for except in a few favored regions the rainfall is scant and uncertain.

Wells and cisterns are chiefly used for the purpose, water drawn up in buckets by means of ropes and pulleys worked by oxen and mules being distributed over plantations intersected by furrows with careful regard to the slope of the ground.

As to the stories of Arabian gold and precious stones, if ever there were such wondrous deposits of wealth they long since disappeared. To Khosru, the Persian, an exiled Arabian monarch spoke of the southern part of his country as "a land where the hills were of gold and its dust was silver;" but thirteen centuries have since elapsed, and about all that is now in sight is a little silver in the mountains of Oman, where also are deposits of lead, with iron and cinnabar in the peninsula of Sinai. Of more importance are the pearl fisheries of the Persian Gulf, extending for a distance of 200 miles and with a yield worth at least $1,500,000 a year.

As with the Hebrews and Phoenicians, commerce was a profitable pursuit, and as honorable as it was lucrative. The colonies of Islam were numerous, and her sailors ventured afar, even to the China seas, while her overland trade extended to the frontiers of China, and included Syria, Armenia, Persia, Mesopotamia, Turkestan, and the entire northern coast of Africa, from whose eastern shore came also ivory and slaves, with spices camphor and costly woods from India. The exports of Arabia and her dependencies bespoke considerable progress in manufactures, including weapons, tools, and glass, cotton stuffs and refined sugar of domestic production, with steel and steel mirrors from Syria; silks satins and brocades from Damascus and Bagdad, from Egypt and Armenia; figured Muslims from Tunis, and trinkets and jewelry from many lands. The carpets made in the time of the caliphs were little if at all inferior to those which are made today. But perhaps the most important branch was the production of paper, which succeeded the original parchment and the papyrus that took its place after the subjugation of Egypt. With it came the art of binding and the trade of the bookseller, all promoting the literary development of Islam.

But neither in manufactures nor mechanic arts has Arabia kept pace with other nations. Though still in Yemen and Oman are fashioned gold and silver ware, woven stuffs, embroideries and various implements of superior workmanship, so much of the labor is performed by hand and so deficient are the tools employed that these cannot enter into competition with articles of European make. As woodworkers they are not unskillful; but as masons they are among the clumsiest of artificers and in all the peninsula there is not a single building erected by modern Arabs to which they can point with pride. For traffic, however, they have by no means lost their adaptability, and today the Arab starting on a journey, be it only to a neighboring village, always takes with him something for barter or sale, selling even the robes on his back or the animal on which he rides, rather than return without trading. Of commerce the volume at the present time is inconsiderable; dates and coffee, hair and wool, camels and livestock, pearls and a few choice fabrics forming the bulk of the exports, while imports are almost restricted to the cheaper class of textiles, to arms, ammunition, and trinkets.

Until the time of Mohammed the Arabs had attempted little in the way of literature, except proverbs and metrical compositions, the latter including amatory, martial, and descriptive poetry, in all of which they excelled. But to millions of converts must be taught the language of the prophet and the doctrines and ordinances of the Koran, and hence were established schools of grammar and lexicography. In the eleventh century there were several dictionaries, and at least one book of synonyms; but literature in its proper sense was still restricted to accession poetry and romance. With the accession of the Abbasid caliphs, science and philosophy found a home in Islam, Mansur, the second of that line, inviting to his court men of learning, skilled in the Greek and Syriac as well as the Arabic tongue. Thus were translated many foreign works, among them those of Ptolemy, Euclid, and Aristotle Plato, and, followed later by Hippocrates, the choicest treasures of the Alexandrian school. The study of history began with the collection of materials pertaining to the prophet, and with

conquest came a certain knowledge of geography. In mathematics, and especially in algebra, they improved on the teachings of the Greeks and Hindus; in astronomy they were also proficient; but in medicine they were mere empirics, and in chemistry their researches were directed only to the transmutation of metals.

Nevertheless in science as in literature, Arabian culture long outlived Arabian conquest, linking together the civilizations of ancient and modern times. To this influence is mainly due not only the revival of learning, but the spirit of criticism and investigation which finally rescued Europe from ages of bigotry and superstition. If, moreover, in the useful arts and inventions the Arabs have been far surpassed by European nations, to the former is none the less due their introduction and in many instances their origin.

Education in its proper sense is today almost unknown in Arabia. There are a few institutions of the higher class where grammar and rhetoric are studied, and at many of the mosques are lectures on Islamic law and theology; otherwise little is taught at the schools, except for the reading of the Koran and the learning of passages by rote. The better part of a boy's instruction, but from which female children are excluded, is received at home, and includes, besides reading and writing, such knowledge of the principles of language, of history and poetry, as may be possessed by the older members of the household. There are no spoiled children among the Arabs, politeness, obedience, and self-control showing the effects of judicious family training.

As to Arab towns and villages, they are but a repetition on a smaller scale of those already described. Most of them are surrounded with stone or earthen walls surmounted with towers which may serve as places of refuge against foes armed with spears and matchlocks, but would fall in ruins before a single round of modern ordnance. In the center of the narrow tortuous streets, or forming a part of them, are the marketplace, mosque, and governor's residence, the last not differing from other dwellings except that it is usually fortified and of larger size. In the homes of the wealthy and well-to-do the kahwah, or coffee-room, is the most spacious apartment, and here the beverage is served at all hours of the day and night, fresh berries being roasted, ground, and boiled on each occasion, so that a special servant is required for the purpose.

As a rule only one substantial meal a day is taken, and that soon after sunset, consisting for the most part of mutton or camel's flesh, fruits and vegetables, thin wheaten cakes and coarsely ground wheat soaked in butter. Meats are nearly always boiled; for to prepare them otherwise is beyond the skill of Arab cooks. Rice is considered a luxury, as also is game, which appears on the table only on special occasions, as on the arrival of guests. Nowhere is the stranger more hospitably received, his advent being often a cause of dispute as to who shall entertain him; nor can he outstay his welcome so long as his company be agreeable.

The Bedouins, or dwellers in the open land, forming about one-sixth of the Arab race, are a combination of herdsmen, shepherds, and thieves, with the thief very largely predominating. The waste lands, mainly between the coast and the central plateau, they regard as their own, and those who trespass thereon must pay what is considered merely as a toll, taking the place of the taxes demanded in civilized regions. But for a very moderate sum a passport and an escort can be obtained from the sheiks, to be renewed as each encampment is reached; so that it is only the unwary traveler, crossing the desert without these precautions, who is liable to suffer the loss of his effects and perhaps of his life. In appearance the Bedouins are much inferior to those who dwell in towns, being

undersized and of forbidding aspect, while the latter, though incapable as it would seem of attaining to national greatness, are individually among the finest specimens of human kind, in physique inferior to few and in intelligence superior to most. As to the much vaunted independence of the nomad tribes, this is merely the result of conditions; for in a shifting population, roving in scattered bands over a wide and barren area, there is little to tempt the cupidity of foreign powers. It is not that they are invincible but that they have nothing to make their conquest worth the while, nothing save their tents, and a few rude weapons and household implements all of which can be readily packed on their camels and carried beyond reach of pursuit.

Miscellany

In addition to the scriptural story of Solomon there are many based on scriptural quotations which have been most curiously interpreted. Of these the following as related in substance in the Talmud, will serve as a specimen. When about to build the temple, Solomon was perplexed, not knowing how to procure the masonry, since neither axe nor hammer must be used. Consulting the wise men, he was advised to procure the Shamir, or miracle-working insect, which aided Moses in preparing the tables of stone for the Decalogue, and which had the power of cleaving the hardest rock in twain. As none knew the whereabouts of the Shamir, it was recommended that male and female genii, or demons—the men singers and women singers of Ecclesiastes—be brought before him and compelled to reveal its hiding place. This they could not do; but being put to torture, they said, "Ashmedai, the chief of the genii, who dwells in yonder mountain, knows it. Daily he ascends to heaven to study wisdom and at night returns to earth, there also to study wisdom." After much trouble, he is brought into Solomon's presence, but only through making him drunk and binding him with chains while in a stupor. By the king he is assured that nothing is required of him but information as to the Shamir whose services are needed for the construction of the temple. He answers that the Shamir is not in his keeping, but belongs to the prince of the sea, and the only creature entrusted with it is the thuki habar, or wild cock, by which the Shamir is presently borrowed, under a pledge that it shall be promptly returned. In the nest of the former is found a young brood which, during the absence of the parent bird, is covered with glass, so that the chicks can be seen but not touched.

Returning, he discovers the deception, and flying back for the Shamir, which he brings in his mouth, is frightened away by Benajah, the captor of Ashmedai, and lets drop the insect. This Benajah picks up and presents to Solomon, whereupon, through grief and shame, the thuki habar puts an end to his life.

Solomon detains Ashmedai until the temple is completed, and asks him one day to reveal the secret of his strength. "Take off the chain on my neck" is the answer, "and I will show thee.” Show him in truth he does in a manner somewhat unexpected for then and there the demon swallows him, and stretching forth his huge wings, one of which reaches to the sky while the tip of the other is poised on earth, spews him violently forth, so that he finds himself a distance of some 400 miles from his palace. It is to this that he refers, as the rabbis claim, in the famous passage in Ecclesiastes: "What profit hath a man of all his labor which he taketh under the sun. This is my portion of all my labor." On the word “this" much stress is laid, one rabbi declaring that, while giving it utterance, he touched his staff, and another that he pointed to his robe or water bottle. From door to door the monarch begs, repeating at each the statement, "I, the preacher, was king over Israel in Jerusalem.” In the meantime Ashmedai usurps the throne; but on the return of the real sovereign, takes to flight with a mighty rushing sound. Though again in possession Solomon is still afraid, as appears in the following: "Behold the bed which is Solomon's; threescore valiant men are about it, of the valiant of Israel; they all have swords, being expert in war; every man has his sword upon his thigh because of fear in the night."

To the imam of Muscat belongs one of the most beautiful pearls in the world, flawless, of pure translucent color and soft iridescent sheen. Its weight is 12 ½ karats and it is valued at $160,000. A still more precious gem is that which is owned by the princess Yousoupoff, originally purchased by

Philip IV of Spain for 80,000 ducats, and now worth $180,000. But perhaps the most precious of all, and so far as is known the most perfect, is in the Moscow museum of Zosima, an Indian pearl of globular shape, weighing 28 karats and yet absolutely perfect. The largest so far discovered, weighing 360 karats, more than four inches in circumference, of irregular formation, and surmounted by a golden crown adorned with the most costly of jewels, forms the center of attraction in the Beresford Hope collection at the South Kensington museum, London.

According to Moslem tradition the use of coffee was revealed to Mohammed by the angel Gabriel, perhaps as a substitute for wine, forbidden to Islam, and also as an antisoporific much needed as a preparation for religious services of many hours' duration . Lower Abyssinia is said to be the home of the coffee plant, and thence it was introduced into Arabia early in the fifteenth century, though utilized in the former country probably before the Christian era. About the middle of the sixteenth century coffee-houses were opened in Constantinople,—the first in Europe—and 100 years later we find them in London, where in 1675 a proclamation was issued by Charles II denouncing them as the resorts of disaffected persons, while his legal advisers declared the sale of coffee a common nuisance and tending to foster sedition. Until about 1700 Arabia was the only source of supply, and thence the seeds were transplanted to Java, one of the first plants grown in that island being presented to the governor of the Dutch East India company, who placed it in the Botanic gardens at Amsterdam. From this single plant have sprung most of the 1,000,000,000 or more coffee trees now in existence throughout the world, the industry gradually spreading to nearly all tropical countries, inhabited by civilized man. As to the various coffee-growing countries with their total and relative production, mention will be made in later chapters of this work.

In connection with Arabic wealth and Arabic literature may be mentioned the Thousand and One Nights, or as it is more commonly termed, The Arabian Nights Entertainment, a collection of stories probably first written in Arabic about the middle of the tenth century, though claimed by some to be of Indian or Persian origin. While the contents are sufficiently known to require no detailed description, brief reference may here be made to this popular work of fiction; for it fairly revels in riches and that which riches can purchase. The doors of the palace to which the roc carried Prince Agib, for instance were of burnished gold set with diamonds and rubies, and all within was of equal magnificence, the wealth both in jewels and gold being incredible. Sinbad the Sailor on his second voyage found himself in a deep valley so thickly strewn with diamonds that had not the place been enclosed by high precipitous walls, hundreds of camel-loads could have been gathered and carried away.

On his sixth voyage he visited the island of Serendib, whose prince and palace were too magnificent for words. The throne was fixed on the back of an elephant; before it was carried a golden lance and behind it a column of gold, while the guard of 1,000 men were clad in silk and gold. In the cave where Aladdin found the lamps were coffers filled with gold and silver, and trees loaded with fruits of various colors, transparent, white, red, green, blue, purple, and yellow; the transparent were diamonds; the white, pearls; the red, rubies; the green, emeralds; the blue, turquoises; the purple, amethysts; and the yellow, sapphires. His nuptial present was forty golden basins filled with jewels, and carried by 40 black slaves preceded by 40 white servitors.

Gulnare said that in ocean's depths were many kingdoms having great cities, well peopled; the palaces of the kings and nobles were most magnificent; there was gold, as on the earth, which was held in

some esteem, but the pearls and diamonds were so profusely scattered that even the commonest people would not stoop to pick them up. Gathered from the sea as a little present for the king of Persia was a coffer containing 300 diamonds as large as pigeons' eggs, as many rubies, with emeralds and pearls sufficient to fill up the box. When the dervish opened the mountain and discovered a vast cavern filled with gold and jewels, Baba Abdullah grudged him the 40 camel-loads which he would take away, for that would then make the dervish as wealthy as himself. Ali Baba found in the cavern of the forty thieves a great store of rich merchandise, and an immense quantity of gold and silver. Prince Husain came to the capital of the kingdom of Bisnagar and was lodged in the place appointed for foreign merchants. The merchants' quarter was large and of many streets, vaulted and shaded from the sun, yet very light. In the shops were the finest linen from India, painted in the most lively colors; silks and brocades from Persia, porcelain from Japan and China. He was likewise amazed at the quantities of jewels and wrought gold and silver in the shops of the goldsmiths, and at the profusion of pearls and jeweled necklaces and bracelets on the persons of the swart inhabitants. Prince Habit, who found the treasures of Solomon buried under Mount Caucasus had to pass through 40 brazen gates, guarded by malevolent genii, and opened only by golden keys suspended from a chain of diamonds in the left hand of a black slave. Of such stories hundreds might here be related; but the above will serve as specimens.

Section Two

Chapter the Fourth: India, China, and Japan

Tsze-Kung said, "Who is the superior man? If poor, he does not flatter; if rich, he is not proud." Mencius said, "He who would be rich will not be benevolent; he who is benevolent will not be rich." Yang-hoo said "Wealth and poverty are but the coverings of the man; the hide of a tiger stripped of its hair is like the hide of a dog stripped of its hair. The Master said, "Riches adorn the house, virtue the person. Gold treasured up for posterity, who shall receive it? Better be upright with poverty, than depraved with abundance. Alms-giving of gold unjustly obtained availeth nothing."

To one interested in the study of man, in his high or low estate, India presents a museum of races gathered from the fragments of a prehistoric world. More than thirty centuries ago Aryan invaders found in the north-western plains a people of degraded type, to which in the Vedic hymns are applied the most scornful of epithets, as "gross feeders on flesh; without gods and without rites.” To this it may be added that they were also without national records of any description, without knowledge of letters or of the simplest form of hieroglyphics, while as to the useful arts the only traces are in the rough stone circles and slabs under which they buried their dead. But these were merely a link in the long chain of races primeval; for in ages much further remote there were tribes whose only weapons for war or the chase were axes of flint and implements of stone. Yet not all were thus barbarous; among them were men of wealth, and in the Vedas there is mention of castles and forts erected by the conquered tribes. Presently alliances were made between Aryan and aboriginal princes; and when we stand on the threshold of history, there were several powerful kingdoms whose rulers were not of Aryan descent. The people tilled the soil and lived in village communities; among them were carpenters, goldsmiths, blacksmiths, and coppersmiths; they fought from chariots, and they had learned how to build ships, or more probably river boats.

Thus from plain to plain and valley to valley spread this migration of Aryan communities, each head of a household being also warrior priest and husbandman.

Among the Aryans who settled in the valley of the Ganges were three principal classes; the Brahmans or priests, the warriors, and agriculturists, this division also extending to other portions of India and existing even at the present day. At first there was no distinction of caste; but later the lines were strictly drawn, intermarriage ceasing and each one adhering to his hereditary calling. Gradually the Brahmans became an in brotherhood, both from a political and social point of view. Their supremacy extended over the warrior class; they framed the laws, which together with their language and religion, their literature arts and sciences, afterward became the standards of the peninsula. Of literature and learning they were not only the custodians but the creators; for to them all Vedic lore was restricted, and to the Veda it was ever their policy to trace all branches of intellectual achievement. Thus for twenty centuries they were accepted as the teachers of the people and the counselors of princes and kings.

For more than 1,000 years the Brahmanical and Buddhist faiths existed side by side, with the latter most in favor during its earlier stages; for Buddhism was the most tolerant as well as the most missionary of all religions. From distant lands came pilgrims to worship at its shrines, among them a Chinaman named Hwen Tsang, who has left some valuable records of the two faiths, as toward the middle of the seventh century of our era they competed for popular suffrage. At Kanauj, on the banks of the Ganges, he found a wealthy and powerful monarch named Siladytia, by whom were built 100 Buddhist monasteries and 200 temples to Brahma, more than twenty tributary kings, with the most learned of monks from all portions of his wide domain, attending a general council held in 634 to consider the various phases of religious life. Once in every five years he distributed the royal treasures impartially among Brahmans and Buddhists, holy men and heretics, first holding festival for seventy-five days, to which were invited all the monarchs of India, with a great multitude of people. Then, to those who stood nearest at hand he presented his own raiment and jewelry, appearing as did the Buddha of old in the garb of a beggar.

The extraneous annals of India begin with its partial conquest by Alexander the Great, though long before his time a vague knowledge of the country had resulted from traffic and travel. Homer, for instance, speaking of Indian merchandise, while in the Bible mention is made of numerous Indian products. There are on record several early expeditions into India from so-called civilized parts, by Diodorus the expedition of Sesostris, BC 1500; and on the authority of Ctesias that of Semiramis BC 1300. The Assyrian queen was fascinated by a report of the riches of India, whose great monarch, Staurobates, was supported by myriads of soldiers with armies of trained elephant-men. A small force would be worse than useless; hence three years were occupied in bringing timber and ship-builders from Cyprus, Phoenicia, and elsewhere, and in massing her army of 3,000,000 infantry, 500,000 cavalry, and 100,000 war chariots.

Alexander founded several cities, which later developed into thriving settlements; so that a Greek empire was established in the frontier provinces of India, one that was not destined to endure but left behind it, many traces of Hellenic culture. Yet he himself left but slight impress on the country; his victories were almost fruitless, and he was only too glad to make his way back to Susa with a remnant of his disheartened and famished soldiery.

For several centuries, however, traces of Greek influence remained, especially in the Punjab, where Alexander had founded settlements. Presently was established the Grajco-Bactrian dynasty, which lasting until near the opening of the Christian era was gradually supplanted by the Scythian and Tartar hordes which swarmed over northern India. Then came further changes, both ethnical and dynastic, which need not here be traced.

Some thirty years after the death of Muhammed, the Punjab was ravaged by Muslim invaders, and after other invasions, early in the 11th century became a Muhammedan province. By the close of the following century the entire region between the Indus and the Brahmaputra had fallen under the Mussulman yoke, and in 1206 a sultan occupied the throne of Delhi, his name being still preserved in the pillar of victory which towers above the ruins of the ancient city. Among the Muhammedan conquerors was Allahuddin, who plundered the temples of Bhilsa, some of the finest specimens of Buddhist architecture. By his lieutenant and favorite, Malik Kafur, were stripped of all their gold and jewels the temples in the present district of Madura, where his name is still associated with the cruelty of fate and the crime of sacrilege. Presently came the invasion of Tamerlane, who winning an early victory outside the walls of Delhi, pillaged the city and massacred the inhabitants, carrying away enormous spoils.

Contemporary with Queen Elizabeth was Akbar the Great, founder of the Mogul empire, which endured in name at least from the middle of the 16th to the middle of the 19th century. After a few years of war, in which he extended his sovereignty over a larger portion of India than was ever the domain of a single ruler, he devoted himself to civil administration, and especially to that of the land revenues. From these he collected nearly $85,000,000 a year; much larger in proportion to area, and in relation to the purchasing value thrice as large as that of British India. By Akbar was also founded a new religion, in accordance with natural theology and the best precepts of established creeds. Of this he was himself the head, worshipping the sun in public, as the representative of the Great Spirit which pervades the universe. After his death in 1605 he was buried in the mausoleum which he erected at Sikandra, where today his name and his tomb are honored. By his son, Shah Jahan, was founded the modern city of Delhi, still called by Muhammedans Jahanabad. Here he erected the famous peacock

throne, and the mosque known as Jama Masjid, one of the most beautiful temples in northern India, with graceful minarets, domes of white marble, and the pavement, walls, and roof of the same material. Yet more famous is the mausoleum known as the Taj Mahal, built for his favorite wife at Agra, a most elaborate structure, on which it is said 20,000 men were employed for a score of years.

It is impossible to follow here in detail the long succession of races and dynasties before India fell under British rule. One after another the earlier tribes forced their way into the land through the passes of the Himalaya in search of new homes amid plain or forest. Of these there are now at least sixty of non-Aryan descent, some of them dying out and some increasing. In ancient centers of Hindu civilization they were classed as low-castes or as out-castes, many of the latter owning stalls or shops of bamboo where they sold food and raiment, but only to their fellow pariahs. Not a few were marauders, swooping down on the villages at the close of harvest, and returning laden with plunder to their mountain fastnesses. From the aboriginal races came almost entirely the criminal classes, with organized bands of thugs and thieves, for whom the punishment prescribed by Hindu law was death, imprisonment, or the bastinado. Under British rule all this has disappeared, except for such petty pilfering as is common to all communities, many of the bandit tribes being transformed into soldiers or cultivators of the soil.

In the great Sanskrit epic of the Veda, for which the Brahmans claim divine inspiration, it is related how from the plateaus of Central Asia, where they led a nomad life, driving southward their flocks and herds and nowhere stopping longer than was needed to raise a crop, the Aryans gradually made their way into India. Yet they liked not its hot and dusty plains, never forgetting their highland homes, "where dwell the gods and holy singers, where eloquence descended from heaven among men." But here at least they became wealthy, as wealth was counted in those days, though cattle were still their chief possessions. These entered from the north, but those who were to follow came by sea and found there an abundance of gold accumulated for many years in the treasuries and temples.

From the partial conquest of Alexander until the voyage of Vasco da Gama there had been but slight intercourse between Europe and the further Orient, and little more was known of the country than when Virgil had prophesied of the great Augustus:

Super et Garamantas et Indos.
Proferet imperium.

There was little commerce, and from travelers came wondrous stories of powerful monarchies and wealth untold; but the journey by land lay through pathless deserts and warlike tribes, while the ocean route was as yet unknown. Then came the futile efforts of Columbus, whose expeditions, however, opened to the world two continents more important than all the Indies. In 1498 Vasco da Gama, voyaging by the way of the cape of Good Hope lands at Calicut on the Malabar coast, and finds there a thriving city with stately edifices, including a temple not inferior in size and plan to the largest monasteries in Portugal. Returning, he bears with him a letter to his sovereign, in which the rajah of Malabar says: "My kingdom abounds in precious stones and in spices.

What I ask from thy kingdom is gold and silver, coral and scarlet cloth." But what the rajah wanted was exactly what the Portuguese monarch would have, so far at least as the gold and silver were concerned. Thus in 1500 Cabral is sent "to promote the cause of Christianity in these distant lands," then, as later, a favorite euphemism for robbery and murder. In command of a powerful fleet and

army, and with instructions "to try preaching first, but if that failed not to spare the sword," he established factories both at Calicut and Cochin. Other settlements followed, the one at Goa, on the western coast, founded by Alphonso de Albuquerque about the year 1510, being still the capital of what little remains of Indo-Portuguese Empire.

For almost a century Portugal enjoyed a virtual monopoly of oriental commerce, presently to be disturbed by Dutch and English competitors. In 1602 a number of trading associations were consolidated in the Dutch East India company, whose operations were far-reaching, the colonial empire of Holland being later widely extended, not only in India but in other lands absorbing nearly all the Portuguese possessions in the east, and expanding westward to the coast of North America and southward to the cape of Good Hope. But the colonial policy of the Dutch was as short sighted as their commercial policy, resembling somewhat in this respect the Phoenicians, who would brook no rivals in commerce, and who left no impress of their civilization on those with whom they were brought into contact. Soon after the capture by Clive in 1758 of the fortress and factory of Chinsurah, their center of trade in Bengal. Dutch supremacy in the Indies came to an end, and half a century later England had wrested from Holland all her more valuable colonies, though for a time longer she maintained her preponderance as a commercial power.

As related in part by Birdwood in his Report on the Old Records of the India Office, the following is briefly the origin and growth of the English East India Company. In 1599, the Dutch having then the control of commerce with the orient, raised the price of pepper from three to eight shillings a pound, whereupon the merchants of London, holding a meeting at which the lord-mayor presided, determined to form an association for trading direct with the Indies. On the last day of the following year this was incorporated by royal charter under the style of the Governor and Company of Merchants of London trading to the East Indies, with a capital of £70,000, increased in 1612 to £ 400,000. The first voyages proved extremely profitable, the average returns exceeding 100 per cent; and notwithstanding strong opposition from the Portuguese, and later from the Dutch and French, the company continued to prosper; so that at the opening of the 18th century it had factories in Bengal Madras and Bombay. Meanwhile several rivals had been consolidated with the original organization, one of which having a capital of £2,000,000 threatened for a time to supersede it, winning its case in parliament because as Evelyn relates in his Diary many friends of the latter were absent, " going to see a tiger baited by dogs.

But this was also consolidated, and still the company grew, not only in wealth but in political power, placing its possessions under a territorial sovereignty.

During the long series of wars in the Carnatic Clive appears on the scene, first as a factor and then as an officer in the company's service. By his defense of Arcot he wins reputation. Then comes the tragedy of the black hole at Calcutta, the city being quickly retaken by Clive, with signal overthrow of the nawab who had plundered its fort of more than £2,000,000. The battle of Plassy, followed by other victories, established British supremacy in India, and the conqueror appoints his own nominee as nawab of Bengal. For this the latter must pay a good round sum no less than 22,700,000 rupees, as compensation for losses to the company and to the people of Calcutta, together with the expenses of the army and navy. But such an amount did not exist in the treasury, and British greed must be satisfied with the payment of half its demands. Clive, however, receiving his share in full.

Appointed governor of all the company's settlements in Bengal, after further consolidating his conquests Clive establishes a thorough system of civil administration, and then returns to his native land with a fortune of £300,000, and a life annuity of £27,000 granted by the nawab whom he had raised to power. After some further service in India, where as a basis of the mighty fabric of British empire he acquired control over 30,000,000 of people with an annual revenue of £4,000,000, he finally journeys homeward, and is impeached by the Commons of which he has become a member, complaining of his examination before the select committee which, as he declares, dealt with him "more like a sheep-stealer than as the member of the house." When charged with making money, he exclaimed, "I am astonished, gentlemen, at my own moderation." Had he so willed it he might have been ten times as rich; for innumerable were the gifts that he refused from native princes, and all that he acquired was through means that were sanctioned by the company's usages. Indeed, had such been the case, and if after robbing the people of India, the company had been robbed by its servants, it ought not to complain.

By Warren Hastings was organized the empire which Clive had founded in the east. A tried and trusted servant of the company, a man of superior intelligence and well acquainted with oriental customs in 1772 he was appointed governor of Bengal, and two years later became the first governor-general of India. His instructions were to carry out a thorough system of reforms, especially as to the administration of revenues, and these he executed, as far as possible, in the face of a strong and determined opposition. Removing the seat of government from Murshidabad to Calcutta, he declared that the latter would become the principal city in India, a promise that has long since been fulfilled. The land revenues were reorganized; the police and military systems were strengthened and purified; the pension of the nawab of Bengal was reduced to one-half though still amounting to £160,000 a year, and from the Mogul emperor he withheld the tribute of £300,000 which Clive had promised as a partial equivalent for the financial jurisdiction of Bengal. The cost of his wars he met for a time by loans, and when cash was urgently needed, by contributions from his private purse. In the collection of taxes the closest economy was used, and the company's monopoly of salt and opium was for the first time placed on a paying basis. It was, however, to the stores of native princes that Hastings looked for filling his depleted treasury; nor had he far to seek. The rajah of Benares. Cheyte Sing, was suspected of disloyalty. Then there was the nawab of Oudh, with vast hoards in the possession of his mother, the begum; but whose finances were in disorder, with arrears of the payments demanded for maintaining a British garrison. Here was indeed a golden opportunity for securing unlimited funds under guise of personal intervention, of settling the affairs of these wealthy provinces. In Benares his reception was not as he had expected; for the rajah rose in rebellion and the governor-general was glad to escape with his life, until, a force coming to his assistance, Cheyte Sing was defeated and deposed, and a heavy tribute exacted from his successor. From the nawab and the begum he obtained whatever he demanded, and his demands were not small, amounting to more than £1,000,000, nominally imposed as a fine.

As to the morality of Hastings' conduct, he had always ready the warren excuse that he was but fulfilling the instructions of the East India company, which under pretence of reform were to exact from the country every lac of rupees that its revenues and treasures would yield.

While carrying out the company's orders and at times even bettering their instructions, Hastings had by no means been unmindful of his private interests. Returning home with an ample fortune, after a long and able if somewhat unscrupulous administration, he was well received both by courtiers and

countrymen; so that for a time there was talk of a peerage, but he met with impeachment instead; and though purged of the charge of high crimes and misdemeanors, he left the bar of the house of Lords a ruined man, for his defense had cost him all he had.

On the administrative system which Hastings had founded, Lord Cornwallis reared the superstructure. By the latter was introduced in Bengal the system of permanent settlement of the land revenues, the total income from which amounted in 1793 to £750,000. As a military leader Cornwallis met with better success than at Yorktown, ending the second Mysore war with the surrender by Tipu Sultan of half his domain, with the payment of £3,000,000 as indemnity. During the regime of Lord Mornington, which began in 1798, was gradually introduced a radical change in the political relations of native and European rulers; for it was his constant aim to make of England the paramount power, Hindu princes retaining merely the insignia and yielding the substance of independent sovereignty. Such indeed has ever since been England's policy, to which the final touch was given when in 1877 her queen was proclaimed empress of India. Meanwhile, as the result of the Sepoy mutiny, the East India company had passed out of existence the entire control of the country, which thenceforth became a viceroyalty, being transferred to the crown by act of 1858. Strong and bitter was the protest of the directors to this sweeping measure as well, it might be since for the greater part of its two centuries and a half of existence the company had enjoyed a virtual monopoly of the richest trade in the world, paying handsome dividends on its enormous capital and holding almost absolute sway over the wealthiest provinces of the empire now subject to the crown, with a present revenue of more than 900,000,000 rupees, an area of 1,500,000 square miles, and a population nearly four times as large as that of the United States.

The Crimean war had lately ended and the war with Persia was still in progress, when on the 10th of May 1857 a long period of Sepoy insubordination culminated in open mutiny at Meerut, one of the oldest towns in the northwestern provinces, founded about 250 BC during the reign of the Buddhist emperor Asoka, and long the ancient capital of the Mogul empire, and which had been selected early in the present century as a military depot, though fallen into decay.

From a few hundreds in 1805 when the cantonments were first established, its population had increased to more than 80,000 in 1857. It was strongly garrisoned by English troops of all arms, and of these there were sufficient to overawe and if need be to crush the mutineers. But the British officers were paralyzed by the suddenness and severity of the blow. For many weeks they had passively endured insult from the Sepoys, and now, without lift ing a hand, they allowed them to break open the jail, to rush through their quarters massacring all the Europeans whom they met, and then swarming into the adjacent city of Delhi, to stir up the native garrison to revolt, to release and swell their ranks with hundreds of criminals, and to murder and plunder at will.

From the earliest times of which there is any record, as early at least as the 15th century of the pre-Christian era, a city of metropolitan rank has stood on the site of Delhi or its immediate vicinity, one after another arising on the ruins of its predecessors, until these ruins were spread over an area of nearly fifty square miles. As now it stands, a wall of solid masonry, constructed by the emperor Shah Jahan, encircles three of its sides, the eastern side, which fronts on the Jumna, being protected by its high and precipitous bank. Close to the river is the imperial palace, now converted into a fort, but of which there still remain its entrance and audience halls, with several of its pavilions, though of the stately corridors that connected them few traces are left. On the opposite side of the Jumna are the

ruins of a fortress erected in the sixteenth century, and at this point the East India railway crosses the stream on one of the finest bridges in India. In the northern and eastern portions are the treasury and other public buildings, separated by spacious gardens and in contrast with the crowded native quarter in the south and west. While most of the thoroughfares are narrow winding alleys, many of them blind alleys, the principal avenues are sightly and spacious, especially the Chandni Chauk, or street of silver, nearly a mile in length, 75 feet wide, and with a double row of trees on the raised pathway which runs through its center. On a rocky eminence nearby is the Jama Masjid, or great mosque already mentioned with its roomy and cloistered court-yard, nearly half an acre in extent, paved with marble and granite. Elsewhere is the Kala Masjid, or black mosque, so named from its color, and probably erected by one of the first of the Afghan sovereigns.

In the suburbs of the city are the tombs of the royal families of India, and of these the most imposing is the mausoleum of a sovereign of the Mogul dynasty, in the midst of terraces and fountains encircled by a turreted and embattled wall. It is a handsome structure of granite inlaid with marble, resting on a platform 200 feet square and surmounted by a lofty dome.

Such was Delhi in 1857, a city fair of aspect; for though few of the palaces of its nobles were still in existence, there were buildings of elegant design erected by wealthy natives and wealthy foreigners, who here had made their home. Not long did this city remain in the hands of the mutineers. At the time of the outbreak all the British officers were killed, except those who had charge of the magazine, one of the largest in India and containing a vast quantity of arms and ammunition. This they defended until further resistance was useless, and then they blew it up, all but three of the gallant band perishing in the explosion. Meanwhile a large number of Europeans, most of them women, had been confined in a chamber no larger than the black hole at Calcutta, and from this they were dragged forth to be massacred.

As district after district rose in revolt, the Sepoys flocked into Delhi, until a rebel army of at least 50,000 trained and disciplined troops was there assembled. To oust them and to recover the city the British could muster but 10,000, and that with much difficulty and delay, their army consisting mainly of Sikh and Gurkha regiments. On the 20th of September the assault was delivered, and after six days fighting the reconquest was completed, with a loss to the assailants, including the many sorties repulsed during the siege, of more than half their numbers. In due time civil government was restored, and since 1857 Delhi has developed into a great commercial and railroad center, a number of lines bringing to its bazaars from many directions a large volume of valuable merchandise.

While the siege of Delhi was in progress occurred the hideous tragedy of Cawnpore, with the story of which all the world is familiar. Still another episode in the great drama of the Indian mutiny was the relief of Lucknow, and this was one of absorbing interest, for on the issue depended the fate of the empire. As the capital of Oudh, as the fourth among Indian cities in size and one of the first in wealth and as a manufacturing, commercial, strategic center with roads that radiate in several directions, it was in truth a prize worth fighting for, and no wonder that the most important operations of the war centered at this point. As seen from a distance, it appears like a cluster of palaces embowered in foliage; but on a nearer view the charm is dispelled; for in aspect it differs not greatly from other oriental cities. Crossing the Gumti river on an ancient bridge of stone, the visitor observes on his left the walls of a fort encircling the so-called Lachman hill, whence probably the name of the town, for here were erected the first buildings of which there is any record. Near by the huge mausoleum,

known as the Imambara, towers above the adjacent edifices, and not far away are the stately minarets of the Jama Masjid, or cathedral mosque. Close to the rivers brink is the palace of Chattar Manzil, a group of leviathan structures without symmetry of design, as also is the Kaisar Bagh the last of the palatial mansions reared by the dynasty of Oudh. The new residency, built on a sightly eminence, is one of the most handsome buildings in the city, and near it, blackened and ruined walls an artificial mound encircled with wreaths and beds of flowers, and a cemetery where 2,000 Europeans lie at rest, recall the gallant defense of the British garrison in the summer of 1857.

On the 1st of July began the siege of the residency, where the British, both soldiery and civilians, had taken refuge within such slight fortifications as could at the moment be constructed. Several assaults were repulsed, and the garrison, though rapidly diminishing in numbers, held its own until the arrival, late in September, of a relieving column under Outram and Havelock. But even then the entire force was only sufficient to hold the residency until further aid should arrive, and all that could be done was to suffer and wait.

Meanwhile Sir Colin Campbell had arrived in India as commander-in-chief, and here at last was the man for the occasion. He found the troops distributed in fragments wherever their services were most required, with little regard to military organization. This he first corrected, restoring system to his disjointed battalions, awaiting the arrival of regiments from England, which was stripped so bare of troops that only the nucleus of an army remained, and notwithstanding all remonstrances, positively refusing to move on Lucknow until his preparations were completed. He was more than justified by the event; for laying siege to the enemy's fortifications with a slender force, but well supplied with artillery, it was only after six days' hard fighting that the relief was effected, and then by the merest stroke of fortune. At the principal stronghold of the mutineers, the resistance was fierce and determined, the men falling fast before the enemy's fire, so that 450 were stricken down and nothing as yet accomplished.

Peel's heavy batteries, their volleys delivered within sixty yards of the walls, could make no impression, and orders were sent him to retire after picking up all his dead and wounded. At this juncture two young subalterns, discussing the situation during a lull in the fight and bethinking them what could be done, observed near at hand a rocky height from which the entire position could be surveyed. "Let us climb it." they said, "and see for ourselves how matters stand; there is surely some way of forcing an entrance into Lucknow." They scaled the height and reaching its summit unscathed, rich indeed was their reward; the stronghold was deserted! An hour or two later Outram and his staff shook hands with their deliverers, and under cover of a heavy fire Sir Colin drew off the garrison by night, together with the civilians, including hundreds of women and children, all of whom were conveyed into safe quarters after long and weary months of suffering from hunger thirst and sickness, and above all suffering from the dread that on themselves would be visited the nameless horrors of Cawnpore.

With the relief of Lucknow and its subsequent recapture in March 1858, the back of the rebellion was broken, and after a year or more of active campaigning the country was finally subjugated. The mutiny cost the lives of several thousand Europeans and of scores of thousands of Hindus; it added $200,000,000 to the debt of India and increased the annual expenditure by $50,000,000. Not least among its results was that it put an end, as I have said, to the East India Company, an act of 1858 for the better government of India transferring the entire administration to the crown. No revengeful

measures were adopted, but rather measures of conciliation; amnesty was declared for all save those who had been guilty of the massacre of Europeans, and in July 1859 peace was formally proclaimed.

During the administrations of Lord Elgin, Sir John Lawrence, Lord Mayo and Lord Northbrook, the first of the viceroys except Canning, little of importance occurred. A famine in the province of Orissa in 1863 swept away nearly one-third of its population, floods in the following year destroyed crops to the value of $15,000,000. But worst of was that which prevailed in 1877-8, extending over a wide area southward from the Deccan to Cape Comorin. For two years the rains had failed and at the close of 1876 the gaunt specter of famine cast its shadow athwart the land. All that the authorities could do was done. By ship and rail nearly 1,000,000 tons of grain were poured into the stricken provinces and $55,000,000 expended in relieving the distress.

Nevertheless the loss of life was appalling, more than 5,000,000 people perishing from starvation and the diseases which followed in its train.

Lord Lytton, Ripon, and Duffer in were succeeded by the marquis of Lansdowne and the earl of Elgin. When the latter came into office, in 1894, he found himself ruler of an empire containing nearly 1,000,000 square miles of territory and a population of 225,000,000 directly subject to British control, with feudatory states covering 600,000 square miles and peopled by 70,000,000 inhabitants. The wealth of this empire is enormous, and in proportion taxed for purposes of government much more lightly than under native rule, one of the Mogul emperors collecting in 1697 more than $400,000,000. The revenue for 1894-5, placing the silver rupee at its then current value of 20 cents, was estimated at $250,000,000, or about one-half of the amount levied in the United States from a people less than one-third in number. Land is the principal source of income, and next are opium and salt, the cultivation of the poppy being limited to certain districts, in most of which it is a government monopoly. The expenditure for the same year was about on a par with the revenue, or perhaps leaving a small deficit, the maintenance of the civil service and of an army of 75,000 European and 150,000 native troops requiring 46 percent of the total, but with liberal appropriations for railways, roads, irrigation, and other pubic work.

In these is represented a large proportion of the $600,000,000 of public debt, a heavy burden in truth, though nearly one-half of it is borne by Great Britain, the interest averaging less than four percent.

For many years the government has given its attention to the building of canals, some for irrigation and others for navigation, the latter chiefly in southern India, for south of the Gangetic basin there are no rivers that are navigable for any considerable distance. In the rainy season they are torrents, and in the dry season the scantest of rivulets, sometimes dwindling into scattered pools. Where the volume of water is ample, as in the Godavari, which runs through the center of the peninsula, its channel from one to three miles in width, there are rapids or other obstructions almost impossible to overcome. On the attempted construction of canals around the barriers of this stream $7,500,000 was expended in vain, though its delta has been converted into a garden spot by irrigating, and for the most part navigable canals, 530 miles in length and capable of watering 800,000 acres. Of all irrigation works the largest and most costly is the Sirhind Canal in the Punjab, with 5,200 miles of main and distributary ditches, costing more than $10,140,000. Another is the Ganges Canal, already briefly mentioned, its 4,160 miles requiring an outlay of $7,780,000. In the presidency of Madras alone more than 2,000,000 acres are artificially watered, and in all British India nearly 14,000,000 acres, from

which is derived a gross revenue of $12,500,000 a year. India is the land of irrigation, and without it could not be supported the teeming population of a country subject to periodical famines. In portions of Bengal and Oudh there are 500 or 600 inhabitants to the square mile, and yet even where two heavy crops a year are raised in favorable seasons, these are insufficient for their support.

India is and ever has been essentially an agricultural country, though it is only within the last quarter of a century that her resources in this direction have been systematically developed. In 1894 there were at least 200,000,000 acres actually under cultivation, and of the surveyed area there were still about 90,000,000 acres available for tillage. As the tax on land yields the largest item of revenue, so is the cultivator of the soil the most important factor in the body politic. Nearly 50,000,000 people, or more than two-thirds of the entire male population, are engaged in husbandry, and many additional millions are indirectly dependent on husbandry for a livelihood. Rice is the staple product of India, though not as is commonly supposed the staple food of its people, the consumption of millet being on a much larger scale, for this is the most prolific of grains and the one best adapted to a tropical climate. In rice there were 70,000,000 acres under cultivation in 1894 and in millet and other cereals 120,000,000,000. Out of 25,000 acres planted in wheat, 9,000,000 are in the Punjab, producing in ordinary seasons from 12 to 15 bushels an acre, or about the same as in the United States, the finest qualities ranking almost on a par with the best American grades. As wheat is more costly than millet or rice, and was never a favorite article of food much of the crop is exported, the reduction in the price of wheat within recent years to a point where it is no longer profitable to raise it, being due in part to Indian competition. The advantages of cheaper labor and irrigation are powerful factors in favor of the Hindu farmer, and there is practically no limit to the quantity that can be produced, for the plant thrives well in nearly all the provinces.

The 3,000,000 acres planted in sugar-cane are insufficient for local requirements, though the product is supplemented by date-sugar, made chiefly in the district of Jessore, where it is a thriving industry.

The cane is grown for the most part on irrigated lands, and its cultivation is fairly profitable, but requires too much outlay, time, and care to find favor with the Hindu. And so with the tea-plant, which is indigenous to Assam, probably its native home, and whence at some prehistoric date it was introduced into China, though according to Chinese legend the shrub was first discovered in 2,737 BC by the mythic emperor Chinnung. Tea culture is entirely in the hands of Europeans, to whom it has been a source of heavy gains and losses, the success of the earlier planters leading to the speculative mania which culminated in 1865 and was speedily followed by collapse. Of late the returns have been satisfactory; for the market for Indian teas is unlimited, exports for 1894 amounting to $18,000,000, and it is not improbable that at no very distant day the crop will exceed that of China. Coffee, introduced as is said more than two centuries ago by a pilgrim returning from Mecca, is largely produced by the natives, their plantations covering 125,000 acres and yielding more than enough for domestic use. Vegetables of many varieties are raised in plats for household consumption, and on larger areas in the neighborhood of towns. Of fruits there are the pineapple, custard-apple, melon, plantain, tamarind, fig, lime, citron, shaddock, orange, mango, and guava, the flavor of the three last being nowhere excelled.

During the cotton famine in England at the time of the civil war, India was the principal source of supply, and though raised for local consumption since time immemorial it was not until 1861 that cotton was largely grown for exportation. From a few million dollars before that date, exports

increased in value to nearly $200,000,000 in 1866 and yielded enormous profits, the price increasing from $6.25 a bale in 1860 to $27.50 in 1864. Here production culminated, shipments of raw and manufactured cottons amounting in 1894 to less than $54,000,000, against a much larger volume of imported fabrics. As to quantity the crop is fair, exceeding 60 pounds of cleaned cotton to the acre; but the staple is too short for the finer class of yarns, and in other respects Indian cotton cannot compete with that which is raised in the southern states of America.

Jute, grown almost entirely in Bengal, is next in importance among fibrous products, and in this there are 2,300,000 acres under cultivation. Sericulture was fostered by the East India Company, reelers being brought from Italy as early as 1769 to teach the Bengalese the art of filature. About half a century later the company had eleven large factories in the province of Bengal, exporting, besides raw silk, at the rate of 1,000,000 pounds a year. Under imperial rule this industry was further developed, but of late has fallen into decadence, the worms being afflicted with a disease for which no remedy has been found. Nevertheless in districts exempt from the pest, and especially in lower Bengal, sericulture finds favor with the natives, 100,000 acres being planted in mulberries in the single district of Rajshahi.

In 1894 opium to the value of $22,000,000 was exported as private merchandise, and probably five times as much by the government of India, whose revenue is increased thereby at least $50,000,000 a year. In Bengal contracts are made by the authorities with farmers encouraged by promised advances in cash to plant certain quantities of land in poppies, the entire crop to be delivered at the government agencies at a stipulated price. At Patna and Ghazipur, where are the two central agencies, the drug is manufactured and prepared for the Chinese and other markets, shipments probably exceeding 150,000 chests a year, or more than sufficient to poison the entire human race. Tobacco for home consumption is grown in every part of India, but finds no market abroad. Indigo, though less cultivated than in former years is still a valuable crop, and of this in Bengal alone there are 40 varieties, classed according to color.

Such are the leading agricultural staples of Hindustan, sufficient, except in occasional seasons of dearth, to support its 300,000,000 inhabitants, and to permit the exportation of food-products to the value of $70,000,000 or $80,000,000 a year. An additional element of wealth is the forests which until recent years were being rapidly destroyed by timber cutters, charcoal burners, and by the hill tribes for nomadic cultivation. To clear the soil, timber-trees of the finest quality were set on fire, the flames often spreading over many thousand acres of forest land.

This was of less importance so long as the chief aim of the government was the extension of husbandry; but as population increased and railroad development created a growing demand for fuel the matter assumed a more serious aspect. Moreover, forests were the inheritance of future generations, and the effect of their denudation on climatic conditions was being demonstrated in Europe and the United States. Thus stringent measures were adopted for their protection; an inspector-general was appointed and a school of forestry established, conservators being also trained for their duties in similar institutions in France and Germany. Up to 1895 more than 70,000 square miles of timber lands had been reserved by the state; the reservation of additional tracts was still in active progress, and while thus acquiring the fee-simple of this boundless source of wealth, the department had added several millions a year to the national revenue.

In 1773 was opened the first coal mine in India; in 1895 there were nearly 100 collieries, their output approximating 3,000,000 tons, valued at $8,000,000. Nevertheless coal and other fuel are largely imported, the home supply not keeping pace with the development of railroads and manufactures. The deposits are widely distributed, the most valuable being those of the Raniganj district, where several European and many native companies and firms are exploiting its 500 square miles of coal-beds. It was probably in India that iron was first mined and manufactured; for here are the remains of the most ancient workings thus far discovered in any country in the world. Almost throughout the peninsula, wherever there are hills there is iron, and this is worked by the same methods that obtained nearly thirty centuries ago.

The foreign shipping trade of India is very large, more than 10,000 vessels, with at least 3,000,000 of tonnage, entering and clearing in 1894. During the same year 1,700 steamers passed through the Suez Canal. Of the coast trade the proportions are enormous, the entrances and clearances for the twelve-month exceeding 200,000 and the tonnage 22,500,000. A large proportion of all the craft were built at Indian ports, 80 to 100 vessels, constructed chiefly at Bombay and Madras, being added yearly to the commercial marine.

It may be stated in general terms that the foreign commerce of India is conducted by Europeans, and that her internal trade is in the hands of Hindus. By the agents of the former produce is collected at central points and dispatched to the seaboard from innumerable farms and villages, among which manufactured goods are distributed in return; by the latter commodities are interchanged between neighbors and neighboring districts. The natives, and especially the Parsees, are shrewd and eager traders, many of them competing closely with foreign firms, and now that British rule has abolished the shackles of despotism, the field for their enterprise is almost unlimited.

Nearly 4,000,000 persons are directly engaged in various branches of traffic; but of these a large proportion are peddlers; for farmers seldom visit the towns, and expect at their doors the itinerant venders whose wallets supply their needs. Every village has one or more shopkeepers, who also act as money lenders and dealers in grain and specie, without whom the more improvident portion of the people would be in danger of starvation. In the towns and larger villages there are weekly markets, and in nearly all the districts are held periodical fairs partaking of a religious character, or for which religious ceremonies serve as a pretext. Some of these fairs, as the one at Hurdwar on the upper Ganges, are attended by 200,000 or 300,000 visitors, all kinds of articles of home production being offered for sale and changing hands to the amount of many millions of rupees.

By the government and municipal authorities are maintained 160,000 miles of highway roads, though in the rainy season rivers and canals are the chief and in some districts the only means of communication. In thickly peopled districts the roads are metalled and all are kept in repair. Large rivers are crossed in the dry season by bridges of boats and in the wet season by ferries; for floods would cover or carry away any permanent structures that could be erected; though across the smaller streams are bridges resting on solid foundations of stone and often supported by substantial iron girders.

It was Lord Dalhousie, as I have said, who in 1850 turned the first sod for an Indian railway, and to him is largely due the planning of the present railroad system, nearly 20,000 miles in length, traversing the entire peninsula, connecting the cities and larger towns and with feeders tapping the principal areas The trunk lines of production were built by private companies, under a government

guarantee of five percent interest on the invested capital and these were later transferred to the authorities, though for the most part still under lease to the companies. Up to the close of 1894 about $725,000,000 had been expended by the state on railroad construction and by corporations $350,000,000, or $1,075,000,000 in all. The gross earnings for that year may be stated at $71,000,000, and the working expenses at $34,000,000, or 48 percent of the income.

Though fares and freights are extremely low, so low that railways have absorbed most of the traffic and travel that formerly passed over roads and canals, the net earnings suffice for the payment of annual dividends averaging five and a half percent. Like all else under state control in India and there are railroads are honestly managed, neither stealings, perquisites, nor watering of stock.

In 1854 there were less than 700 post-offices in all the peninsula; in 1894 there were nearly 25,000, distributing 400,000,000 letters, postal cards, newspapers, parcels, and money orders. While the system is somewhat expensive, the outlay of this department is but slightly below its revenue. Much of the service is performed by runners, by boats and carts or on horseback, the railroads covering less than one-fourth of the total distance travelled by the mails. Of telegraph offices there are about 1,200, and of telegraph lines some 45,000 miles, all under government control and extending throughout the entire empire. None of the cities and towns and few of the larger villages are without telegraphic and postal facilities, extended year by year as wants increase and means permit.

According to the census of 1891 there were 75 cities and towns in India whose population exceeded 50,000; there were 40 that contained from 35,000 to 50,000, and 766,000 villages with from 500 to less than 200 inhabitants. Yet, as we have seen, this represents less than one-third of the entire population, the remaining two-thirds being farmers or farm laborers; for nothing short of imminent starvation will drive the Hindu from what he deems the sacred calling of agriculture.

From a group of mud villages at the close of the seventeenth century, Calcutta has developed into a city of 1,000,000 people in these closing years of the nineteenth. Here, after building Fort William in 1696, the East India Company established its headquarters in Bengal, purchasing the native settlement of Calcutta from Prince Azim, son of the emperor Aurungzebc. The guard-room of this fort, less than 20 feet square and with only two small windows, was the Black Hole into which 146 Europeans were driven at the point of the sword, and from which, after hour's imprisonment, only 23 were taken alive.

Soon afterward the fort was abandoned, and another site was completed in 1773 the present Fort William at a cost of $10,000,000. From it extends towards the east the maidan, or park, with its beautiful gardens and spacious promenades and drives, where in the cool of eventide gather the beauty and fashion of the metropolis. On other sides it is flanked by Government house, by public offices, and the costly residences of the Chauringi, or European quarter, beyond which are the thickly clustered and peopled huts of the native population.

Passing to the island of Ceylon, may first be mentioned the remains of what were formerly among the largest irrigation works in the world, some of them in the form of artificial lakes several miles in circumference, and with canals for conducting their waters to the fertile valleys and plains which this country, under its ancient rulers, the granary of southern Asia. While many of these have fallen into decay, some have been restored and others are in process of restoration; for agriculture is still, as in olden times, the favorite industry of the Cingalese, even the hillsides being laid out in terraces and

producing crops of rice. Wheat was not raised in considerable amount until Ceylon became a British possession, and manufactures were few and primitive; but there were other sources of wealth, especially in the pearl fisheries on the northwest coast, while precious stones were fairly abundant.

China, the Sin, Chin, or Sinas of ancient times known to the Romans as the land of the Seres, and in the middle ages as Cathay, was to Europe almost a fabled realm until the thirteenth century, when Genghis Khan and his successors were extending Mongol rule westward through northern and central Asia and into the heart of Europe. Priests and envoys visited the great Khan in Mongolia, returning with statements for the most part reliable and of which many have been preserved. Among them were the Franciscan friars Juan de Plano Carpini and William of Rubruk, the latter from French Flanders who about the middle of the century reported, "The country is very rich in corn, wine, gold, silver, and silk;" "their betters as craftsmen cannot be found;" in great Cathay is the Land of the Seres, for the best silk stuffs are got from there;" "the common money of Cathay consists of pieces of cotton paper, about a palm in length and breadth, upon which certain lines are printed resembling the seal of Mangu Khan."

The friars, however did not penetrate far into the country, but acquired their information chiefly from Cathayans at the bazaars in the camp of Genghis Khan. The first Europeans to travel and report at length on Cathay were members of the Polo family, of Venice, Marco especially encountering many strange and novel experiences, a few of which are here related for what they are worth. Not far from Peking he came to a castle, which had once been the residence of him who was called the golden king, potent and wealthy prince, the great hall of his palace being finished in gold. "There used to be in his service," says the Venetian, "none but beautiful girls, of whom he had a great number at his court. When he went to take the air about the fortress these girls used to draw him about in a little carriage which they could easily move." In crossing what he names the river Kiansuy, he speaks of a great stone bridge, "seven paces in width and half a mile in length; on either side are columns of marble to bear the roof, for the bridge is roofed over with timber, all richly painted.

And on this bridge there are houses in which a great deal of trade and industry is carried on; the dues taken on this bridge bring to the lord 1,000 pieces of fine gold every day." The city of Kinsay, otherwise Kingsze. or Hangchau, he assures us was 100 miles in compass; and there were "12,000 bridges of stone, for the most part so lofty that a great fleet could pass beneath them. And there were in this city twelve guilds of the different crafts, each guild having 12,000 houses in the occupation of its workmen. Each of the houses contained at least twelve men, while some had twenty or forty, masters and workmen. And yet all these craftsmen had full occupation, for many other cities of the kingdom were supplied from the city. The number and wealth of the merchants, and the amount of goods which passed through their hands were so enormous that no man could form a just estimate thereof. Moreover it was an ordinance laid down by the king that every man should follow his father's business, and no other, no matter if he possessed 100,000 bezants.

"Further more there exists in this city the palace of the king who fled, him who was emperor of Manzi, that is to say the Song palace, and that is the greatest palace in the world. Its demesne hath a compass of ten miles, all enclosed with lofty battlemented walls; and inside the walls are the finest and most delectable gardens upon earth, filled with the finest fruits. There are numerous fountains in it also, and lakes full of fish. In the middle is the palace itself, a great and splendid building. It contains twenty great and handsome halls, one, more spacious than the others, affording room for a vast

multitude to dine. It is all painted in gold, with many histories and representations of beasts and birds, of knights and dames, and many marvellous things. It forms a really magnificent spectacle, for over all the walls and all the ceiling you see nothing but paintings in gold. And besides these halls the palace contains 1,000 large and handsome chambers, all painted in gold and divers colors." There were in the city, as Marco would have us believe 1,600,000 buildings, among them a great number of rich palaces. On one side of the city was a fresh-water lake and on the other a large river, with many canals intervening. There were ten principal markets, besides many others, the former all occupying squares, extending half a mile on each side. From this city the emperor drew a large revenue, first from salt, "5,600,000 saggi of gold, each saggio being worth more than a gold florin, or ducat; in sooth a vast sum of money! In this city and in its dependencies they make great quantities of sugar, as indeed they do in the other eight divisions of this country; so that I believe the whole of the rest of the world together does not produce such a quantity, and the sugar produces an enormous revenue. Spicery pays three and a third percent on the value, and all other merchandise the same.

The rice-wine also makes a great return, and coal, of which there is a great quantity; and so do the twelve guilds of craftsmen."

Fuju, or Fokien, was another great city, the seat of large trade and manufactures "There flows through the middle of this city a great river, which is about a mile in width, and many ships are built at the city which are launched upon this river. Enormous quantities of sugar are made, and there is a great traffic in pearls and precious stones. For many ships of India come to these parts bringing many merchants who traffic about the isles of the Indies. For this city is, as I must tell you, in the vicinity of the ocean port of Zayton, which is greatly frequented by the ships of India with the cargoes of various merchandise. Hither is imported the most astonishing quantity of goods, and of precious stones and pearls; and from this they are distributed all over Manzi. And I assure you that for one shipload of pepper that goes to Alexandria, or elsewhere, destined for Christendom, there come a hundred such, aye, and more too, to this haven of Zayton, for it is one of the two greatest havens in the world for commerce. The ships were of fir timber, one deck, each of fifty or sixty cabins, wherein the merchants abide greatly at their ease, every man having one to himself. These ships carry 5,000 or 6,000 baskets of pepper, and require 200 or 300 men.

An important work, so far at least as it relates to European trade with China, is the old commercial guide book entitled Libro di divisamenti di Paesi, written about 1340 by Francesco Balducci Pegolotti, a clerk in the Florentine house of Bardi, and giving information as to routes of travel, currency, in the form of silver ingots and paper money, and the purchase of merchandise of which silk was the leading article. The country has much good soil, and its wealth-producing power is largely increased by numerous rivers and canals. The two largest rivers are the Yangtsze Keang and the Hwangho, or Yellow river, noted for its destructive floods. The Yunho, or Grand Canal, is an artificial river extending from Hangchow to Tsinkeangpu, where it unites with the Yangtsze Keang, after passing through some of the most fertile districts of the empire. A feature of the surface formation of northern China is the loess region, an area of more than 250,000 square miles covered with friable earth and yielding abundant crops with slight expense of labor and without the use of fertilizing substances.

In common with other nations, the Chinese were probably a nomadic before they became an agricultural people, first appearing in history as a small and migratory horde roaming the plains and forests of Shanse, houseless, destitute of clothing, and subsisting on roots, insects, and the raw flesh

of animals slain in the chase; for to them the use of fire was as yet unknown. But soon after entering the flowery kingdom their wanderings practically ceased, for if nomads, they brought with them a knowledge of certain industries; so that presently we find them growing grain, spinning silk, and weaving flax into garments; indeed, time enough they had to do much, as from the creation to the days of Confucius they counted somewhat more than 2,267,000 years. The chronology and traditions of this period I do not propose to inflict on the reader, remarking only that it is little wonder their historical dramas should occupy a year or two in the performance.

There were many epochs and dynasties which native historians have described or invented—ten epochs preceding the Chow dynasty; after which were the Shang dynasty, the Leang, Yang, Tsin, and Han dynasties, and the rest. Among the earliest of noted personages were he who discovered the element of tire by the accidental friction of dry pieces of wood, and the one who discovered iron, as did the Phoenicians the art of making glass, in the ashes of a fire kindled on the ground.

In science, Chin Nung, the botanist, was eminent; to the seventy poisonous plants, knowledge of which the world first owed to his investigations, he found seventy antidotes in other plants, thus equalizing matters. The empress Selingshe, wife of the usurper Hwangle, noticed the silkworm wind its delicate thread into the cocoon, which she thereupon unraveled and wove the filaments into a web of cloth. During the reigns of Yaou and his successor, more than 2,300 years before Christ, marts of trade and local fairs were established throughout the empire, which never before had been so prosperous or so free from crime. Far otherwise was the condition of affairs when Confucius attempted in vain the reformation of a people among whom, as his disciple Mencius relates, "virtue and right principle had disappeared and wicked deeds were waxen rife, ministers murdering their rulers and sons their fathers." To this he might have added that the country was distracted by civil wars and harassed by predatory incursions; for about four centuries before the days of Confucius the Tartars appeared on the scene, and thenceforth, though repeatedly driven back, became a perpetual source of peril and annoyance.

Better was the nation governed during the regime of Che Hwangte, "the first universal monarch" of a realm almost coextensive with modern China. Ascending the throne when but thirteen years of age, some three centuries after the birth of Confucius, he devoted himself to works of public utility, as the construction of roads, canals, and public edifices, erecting in his chosen capital—the present Segan Foo—what was in that age the grandest of Chinese palaces.

Then, with all the forces at his disposal, he marched against the Tartars, exterminating or driving them into their mountain fastnesses. He it was who took upon himself the task of building the great wall of China, almost completed during the latter years of his reign and under his own supervision, though extending across the entire northern frontier. In height it varied from 15 to 30 feet; was 25 feet thick at the base, and at the top wide enough for several horsemen to ride abreast, requiring, as is said, the enforced labor of every third man in the empire. Notwithstanding its fortified towers, with guards or garrisons stationed at short intervals, it did not serve to keep out the Tartars, any more than did the congressional wall thrown around the United States in these latter days of the 19th century serve to keep out the Chinese.

Passing to the middle ages may first be mentioned the usurper Yangte. who after putting to death the rightful heir to the throne, early in the seventh century, gave himself over to carnal lust and debauchery, which presently gave place to the lust of conquest. Expeditions sent against the Tartars

were followed by one conducted in person against the Coreans, whose empire he found in greater disorder even than it has been during these latter days. Meanwhile he squandered the nation's funds on public works of doubtful utility, and on the erection of a costly palace at Loyang, thus laying such heavy burdens on his people as to arouse a spirit of rebellion and discontent, culminating in his assassination. For one thing only his reign is to be commended, and that is his respect for literature. The imperial library, before consisting of 15,000 volumes, was increased to 54,000; and among them were many works relating to the history of the empire, records of which had been destroyed, but restored in part from memory.

About the close of the century we find a woman ruling over a country where women were accounted as little better than slaves; Woo How was her name. On the death of her husband she had usurped the throne, and managed the affairs of state with greater discretion than most of her male predecessors. Then follows a long succession of vicious and for the most part feeble administrations and dynasties, until we come to the invasion of Genghis Khan, whose hosts swept through the land like a blast from the pit of Acheron, so that it was said a horseman could ride without obstruction over the sites where ninety cities had stood. In 1259 Kublai, grandson of the fierce Mongol warrior became emperor of China, though not universally acknowledged until some twenty years later. He it is whom Marco Polo calls the great khan, and great indeed he was; for his domain extended from the straits of Malacca westward to the banks of the Dnieper, and princes were proud to call themselves his vassals and to pay him yearly tribute. Never before nor since was the nation more powerful or prosperous: for while making himself felt abroad, Kublai was not unmindful of the welfare of his subjects, expending his revenues on public improvements and giving freely of his substance to the poor.

Three centuries ago the late war between China and Japan had its parallel in a struggle for the possession of Korea. In 1597 the Japanese invaded the peninsula, and after destroying the Chinese army and navy ravaged the western coast of the Yellow sea but for some unexplained reason retired without gathering the fruits of their conquest. Other raids followed at brief intervals; so that the empire was seldom at peace for so many as a score of years at a time. Doubtless these periods of blood-letting relieved the country of many impurities, and of much surplus and undesirable population. In former times war was less a matter of money than of men; but in these latter days the pecuniary cost is enormous, and the victors' reward must be largely in cash, the issue depending rather on the metal that is turned into coin than on that which is turned into swords.

Thus far the wars of China were only against Asiatics; but in 1840 came hostilities with England, resulting in the cession of Hong Kong, the payment of $27,000,000 as indemnity, and the opening of several ports to foreign trade. The cause was sufficiently disgraceful, and only too well known—the import and sale of opium by English merchants, in spite of the protests and preventive measures of the mandarins. The sedative and medicinal properties of the juice of the poppy, indigenous in southern Europe and western Asia, were known long before the cycles of our modern era began their numbering. With the spread of Islamism opium was introduced into India, and thence by the Arabs some centuries afterward into China. Its sale was monopolized by monarchs and powerful corporations, notably the great mogul and later the East India Company. In 1796, the emperor Kea King forbade the importation of the drug, and the penalty for opium smoking was imprisonment or death; but England had much of it to sell, and China must furnish a market, even though it be forced upon her with gunboats. At first her people abhorred the poison, but presently learned to crave it; so that between 1820 and 1830 the consumption amounted to nearly 200,000 chests. In a second war,

ending in 1860, a strong force of British and French advanced on Peking, and the emperor was only too glad to rid himself of the hated foreigners by another payment of about $12,000,000 or $13,000,000.

Without tracing further the wars and dynasties of China, let us turn to the industries and resources, the customs and habits of a people at least as ancient as the Egyptians, and of whose early history even less is known. In this connection may first be given a brief description of the imperial city; for here is a notable example of what money, men, and time will accomplish. Khanbalik, or the city of the Khan, the capital of Cathay in thirteenth century parlance; Peking, the capital of China, as today we call it, is probably more than 3,000 years old, and with a present population of somewhat over 1,000,000, —a smaller number than its area would suggest, for the outer walls are 30 miles in circuit. There are many vacant spaces, especially around the royal palace, the se yuen, or western park, with an artificial lake spanned by a marble bridge, forming a part of its grounds. The crowded quarters are few, and viewed from the walls it presents the aspect of a city of palaces, mansions, and temples, of fantastic design to our western notions, gay with many colored tiling, and fringed with groves and gardens. Trade yang fang is limited, and there is little foreign commerce.

As to the resources industries, and commerce of China, what is said of the present applies largely to the past, since for many centuries the Chinese have changed but little, and railroad construction with all such modern appliances as would open the interior to modern intrusion, have been persistently discouraged. Of the wealthy and wealth producing classes apart from government officials, farmers, and men of letters occupy a foremost position merchants and mechanics being held in less esteem. Like all else in China, the origin of agriculture is traced back into the mists of prehistoric ages; yet while the country is the most densely peopled on earth, there are still large areas available for cultivation, the government exempting from tribute tracts reclaimed from waste. Realty is held in freehold subject to the payment of a tax, which is remitted in case of a failure of crops; and in the larger villages is an agricultural board whose duty it is to see that the husbandman makes the most of his opportunities; for the law requires that all lands shall be kept in a high state of cultivation. The farm houses are usually built of clay with tile roofs extending far over the walls and for implements. there are the plow with wooden share, differing but little from the one which Chin Nung is said to have invented some thousands of years before Christ; the iron-tipped hoe, the harrow, spade, flail, reaping hook, and winnowing-machine. In the Northern provinces, the summer rain and winter snow furnish as a rule sufficient moisture; in the south, where rice is the staple product, irrigation is essential, though methods are crude and primitive, the chain-pump and bucket playing a conspicuous part. In horticulture and pisciculture the Chinese excel, and for domesticated animals, there are the buffalo camel and yak, oxen milch-cows and sheep, goats swine and poultry, horses asses and mules, all of which are offered for sale at the country fairs, where trading in live-stock is a leading feature.

Sericulture is and long has been a prominent industry; for the silk-moth is believed to be indigenous to China, and silk was thence introduced into southern Europe long before the opening of the Christian era, the Greek words ser as applied to the worm and serikon to the fabric, pointing to its origin in the land of the Seres, as China was termed in the classic age. First discovered, as I have said, more than twenty-six centuries before Christ, by the empress Selingshe, for whom is also claimed the invention of the loom, it has never ceased to be a favorite occupation, so that to this day is held an annual cocoon festival, at which the court ladies gather mulberry leaves, feed the worms, and reel off the filaments with gold and silver implements. The secret of this valuable art was carefully guarded,

and when first silk made its appearance among nations bordering on the Mediterranean, they knew not what it was, some pronouncing it to be a very fine quality of wool or cotton, and others the down of leaves. It was, moreover, very costly, at times beyond the means even of monarchs and millionaires, the emperor Aurelian for instance refusing his wife a silken gown on account of the expense. But presently the process became known beyond the flowery kingdom; first to the people of India, whither as tradition relates the ova of the moth were surreptitiously carried in the head-dress of a Chinese princess; then to the Koreans, by whom a temple was erected to the first weavers of silk. By Persian monks the eggs were brought to Constantinople concealed in a hollow cane, and from the contents of this Cane have come all the varieties of silk, the manufacture of which has been to the western world an unfailing source of wealth.

To China sericulture is what coal and iron are to England, export values ranging from fifty to sixty millions of dollars a year, exceeding even those of tea, and almost as great as those of all other commodities combined. While the foreign demand is mainly for raw silk, large quantities are wrought into fabrics at home, especially in Canton, where is a large body of resident weavers. The industry is fairly profitable, and the more so that it is well subdivided; some raising and tending the worms, some growing the mulberry trees and selling the leaves, others trading in cocoons, and still others manufacturing the silk.

The properties of tea, now used as a beverage by half the civilized world, are said to have been discovered more than 2,700 years before Christ by the emperor Chin Nung, to whom, as we have seen, is also credited the invention of the plow; for to this mythical personage the Chinese attribute all that was first made known of agriculture and pharmacy. Certain it is that tea is mentioned in the works of Confucius, or at least in those which he edited; but it was not until some fourteen centuries later that through general use it became a source of public revenue. In one form or another the plant is raised almost throughout the empire, green tea in the north and black varieties in the southern provinces. Modes of culture and manipulation differ widely, that which is retained for home consumption being treated by special processes, and of superior quality to any of the exported articles. Exports for 1890 were valued at some $40,000,000, the smallest in many years on account of increased competition, especially with Japan, Ceylon, and the British East Indies. The plant takes kindly to many soils and climates northward from about latitude 40°to the shores of Brazil and Australia, and has even been raised in the open air on the southern coast of England. That for 2,000 years or more it was restricted exclusively to China is due less to natural advantages than to superior methods and to the fact that the crop can there be raised and gathered for a wage of six to ten cents a day.

The species of poppy from which is obtained the opium of commerce is grown in many provinces, and in some places where silver is scarce opium is used as currency. Though the area of cultivation is steadily enlarging, the supply does not keep pace with the demand, imports of the drug amounting to $40,000,000 or $50,000,000 a year.

Rice is a staple product, especially in the south, where also sugar is raised, and wheat maize barley and millet, with other cereals are among the chief resources of northern China.

Coal is found in all the provinces, and to some extent is exported, mines worked under foreign control being extremely productive; while of iron and copper there are large deposits as yet almost untouched. For domestic purposes charcoal is preferred to coal and in the few districts where iron is mined the hills are covered with furnaces. Sulfur is plentiful in the island of Formosa, and is used not

only for the manufacture of gunpowder and fireworks, but for tanning bleaching and dyeing. As to the precious metals, while in fair supply, and with extensive veins both of gold and silver worked by the government, mining in this direction finds little encouragement, since capital is needed for the purpose, and capital demands protection and security, which as yet are missing factors in the body politic.

In contrast with the dormant and self-satisfied condition of China is the progress of Japan within recent years in industries and arts, in systems of commerce and communication, in local and national government, in naval and military affairs, and above all in education, the last due largely to intercourse with the United States. In its treatment of Japan the Anglo-American republic has been guided by no selfish policy, its diplomatists, teachers, and men of science aiding the struggling nation to the best of their ability, and with an earnest desire for her welfare. Hundreds of Japanese travelers and specialists, whose purpose was to study our western civilization, have been hospitably received, and hundreds of students have been taught at American institutions of learning. At their own university are colleges of law and literature, of engineer and other sciences; there are schools of every grade from the kindergarten to the normal academy, with commercial, technical, and industrial schools, attended in all by more than 10,000,000 pupils; there are at least a score of libraries, and more than 1,000 newspapers and periodicals assist in training the people to a sense of their responsibilities. Such is the Japan of today; and yet some three or four decades ago the nation was as much self-concentrated as the hermit or the flowery kingdom, content with the past, without ambition for the future, and willing to abide under the order of things established by a dynasty almost as old as the monarchy of ancient Rome.

But first let us hear briefly from the beginning, so far as it is connected with our theme, the story of the Japanese empire as related in substance by themselves, Japan, they say, is the world, and Isanagi and Isanami made it, and from this creative pair sprang all the people.

By the left eye of the sun-god, as he was bathing in the sea, was begotten the sun-goddess Amaterasu, primogenitress of Jimmu Tenno, founder of the dynasty of which the present Mikado is the 121st successor. Among the most beneficent of the earlier sovereigns was Sojin Tenno, the tenth in succession, whose rule extended from 97 to 30 BC. Agriculture was his special care, and it was he who built the first reservoir for the irrigation of rice fields. The work was continued by his son and successor, many canals and storage tanks being constructed, together with magazines in which the grain was preserved for seasons of famine. He reared also the famous temple of the sun-goddess, which afterward became the national shrine. By later rulers the work of irrigation was further extended, and especially by Ojin Tenno, who with enforced Korean labor made reservoirs and trenches, of which not a few are still in use. From Kudar he imported horses and arms, weavers and workers in iron and copper, and those who knew how to make brandy. To a learned Chinese doctor named Wani he entrusted the education of his son, and thus was the philosophy of Confucius and Mencius first introduced into Japan.

Jingo Kogo, empress of the 14th Mikado, who died shortly after the time of Christ, conquered Korea, thus preparing the way for the introduction of Chinese civilization, with the domesticated animals and cultivated plants of China, the religion of Buddha, and the philosophy of Confucius. In these 121 Mikados were 114 men of wealth, whose several fortunes cannot here be chronicled. Nintoku, the 16th on the list, also constructed roads and irrigation ditches for the extension of rice-planting, and to him

are probably due the first experiments in the breeding of silk worms. He was esteemed as a beneficent ruler, a man of worth and wealthy withal. Some of his successors were warriors and did more killing than creating. Sashun, the 32d of the line, erected costly temples to Buddha, zeal for the holy work increasing during the reigns immediately following. About the year 600 AD. Doncho, a Buddhist priest, brought to this kingdom of Wo, as the Chinese called Japan, knowledge of the use of paper and ink, and millstones. Next to the Mikados the oldest and richest family in Japan was that of Fujiwara, whose founder was Nakatomi.

The empress Jito, the 41st sovereign, increased the number of Buddhist temples to 545, and Mommu Tenno, next in succession, revised the laws of the empire, and encouraged the study of Chinese philosophy, promoting also the cultivation of the mulberry tree and the manufacture of silk. It was during his reign that cremation was first introduced, a custom still existing. A copper mine was found in Musashi, during the reign of the empress Gemmei, AD 710; while under Shomu, the 45th Mikado, who spent nineteen years in acquiring a knowledge of Chinese law letters and philosophy, and invented syllabic writing, the first gold mine in Japan was discovered and the orange-tree introduced.

Kuwammu, the 50th Mikado, was a great and good man, solicitous for the progress and prosperity of his country. He made canals and dams, abolished the mendicancy licensed by the priests, reorganized the civil service, and fostered education. He removed the royal residence to Uda afterward Kyoto, and there, on the bank of the Kamogawa he built the palace of Heianjo, or city of Peace, where his successors resided until 1868. This palace which had twelve gates and was surrounded with beautiful gardens, stood almost in the center of the capital, where were more than 1,200 streets, clean, well kept, adorned with monuments of art and history, and lined with houses of tasteful architecture; so that presently Kyoto became the national center of wealth and culture . The religion of Buddha likewise flourished and never before had so large a following. Nimmio, who reigned between 834 and 851, encouraged agriculture and built asylums for the indigent and sick.

Uda defeated a piratical expedition from Shiraki, and by the 67th Mikado the Koreans were driven back within their boundaries in 1012-1017. Under the pious Shirakawa, 72d sovereign, the priests of Buddha became exceedingly powerful and by their arrogance and extravagance gave much cause of offence.

With the 12th century came feudalism and military despotism civil wars and fanatical outbursts continuing for several centuries of the Japanese middle ages. During the Mongol invasion of China, when Marco Polo was the guest of Kublai Khan, Korean envoys presented to Gouda, 91st Mikado, a demand for his submission, which was rejected with scorn. Godaigo, who ruled from 1319 to 1338, prevailed on the rich men of Japan to lend their aid in relieving the distress caused by a great famine then in the land. When Columbus sailed to America. GotsuchiMikado was 102d sovereign and with the Portuguese on the coast of China, and the Sinniards at the Philippine isles, the teachings of Christ began to compete with those of Buddha for the attention of the now prosperous and wealthy Japanese. Mendez Pinto was in Japan in 1542, and the reports which he brought back to Portugal the credulity of his hearers. Soon were at hand the emissaries of Loyola, whose order was founded about this time.

Conspicuous in the history of Japan is Ieyasu, whose military prowess led to the capture of the castle of Ozaka in 1615. During the regime of his grandson, Lyemidzu, Christianity was eradicated; coinage established; weights and measures regulated; and a survey and cartography of the country instituted.

Among the richest and most influential houses of Japan were those of Shimadzu of Satsuma, and Nabeshima, daimio of Saga, followed in the earlier part of the 17th century by that of the house of Hosokawa; also Kato Kiyomasa, to whom belonged the fertile province of Higo; the three rival houses of Ogasawara in Buzen, Kuroda in Chikuzen, and Mori in Choshiu; while by the house of Li was claimed the fair domain of Ishida Mitsunari. Class distinctions were clearly marked; first, there was the Mikado's establishment with its royalty and court nobility; second, the laborers, military; and third the people, and wealth-producers, on whom the others lived. The Mikado was the son of heaven; he was richest of all because to him belonged, at least in name, whatever the nation possessed. Indeed, his life and rulership were so divine and spiritual that oftentimes he appeared to know less of his belongings on earth than of his mansion in the skies. Of his subjects he knew nothing and was to them unknown, living and dying within the walls of his yellow palace at Kyoto and being deified after death. He had one, wife a dozen or so of concubines, and as man more women as he cared to trouble himself withal. Belonging to the court nobility, there are now about 150 families descendants of former Mikados and whose residences surround the imperial palace. The daimios, or representatives of the feudal aristocracy, were nominally entrusted with the peace and welfare of the nation. The richest fiefs were Kaga, Satsuma, and Mutsu; next to them were Owari, Kii, and Mito, with revenues equal to 610,500,559,000, and 350,000 kokus of rice respectively, which provinces Iyeyasu gave to his three youngest sons.

As to resources and industries, Japan is not what may be termed a rich country, though fairly supplied with minerals, the main island being mountainous and with rugged upland regions. Rivers are numerous but of no great length, and vegetation is luxuriant with forests of cedar and pine, maple and mulberry, the ilex and the giant camellia, while of fruit-trees there are the orange apple and plum, the peach vine and persimmon, with chestnuts and walnuts, though of none are the products equal to European or American varieties. The camphor tree is indigenous, and a source of considerable profit, exports of camphor for 1890 amounting to nearly 2,000,000 yen. The cotton plant, introduced from India in 799, thrives on Japanese soil, as also does the tea-plant, the leaf of which next to silk being the leading article of export. Rice, the staple crop, is grown wherever agriculture is practicable, nearly 7,000,000 acres, watered by irrigation ditches, producing 190,000,000 bushels in 1891. Of wheat, barley, and rye the total yield for that year was about 89,000,000 bushels; of sugar for 1890, 92,000 tons, and of silk 18,000,000 pounds. Of cattle and swine there were at the latter date somewhat over 1,000,000, and of horses and ponies, 1,600,000, monkeys which swarm in the forests, serving for food in place of sheep, for which the pasturage is unsuitable. Lands are largely held by peasant proprietors and in diminutive holdings, especially in the rice or paddy-fields. Agricultural implements are still for the most part of primitive pattern, and agricultural villages are poverty stricken in the extreme, women and children scantily clad and fed working on the farms from dawn till dusk.

Manufactures are in better condition, especially in Kyoto, the home of the fine and decorative arts and the former seat of government, where still is maintained the reputation for silks and Crapes, for porcelains and bronzes, carvings and embroideries, which for many centuries this ancient city has enjoyed. In all the larger mills Jacquard and other looms have taken the place of hand machines, operatives who have been trained in Lyons factories returning with a knowledge of modern methods and machinery.

For the Mikado and his family are made the finest of silks and brocades, some of the latter still with gold threads and covered with designs representing the imperial chrysanthemum. There are also

delicate white silken undergarments which his majesty wears but once and then presents to his subjects by whom they are valued as priceless treasures. Nishikis, or brocades of the finest workmanship, of which few are found in foreign markets, were always highly prize, as is attested by the old saying, "He wears rags, but his heart is brocade." Tapestries are woven which compare in beauty and durability with those of Gobelins and Beauvais. Crapes are fashioned in many patterns and textures, the most expensive being the kabe habutai, a soft but substantial fabric which shows neither crease nor wrinkle, and the kinu chirimen, a beautiful tissue with ridgings in parallel lines. Silk rugs of the best quality are worth $18 a square yard, and though of superior finish, are suggestive rather of western than oriental design.

In embroidery the Japanese have never been excelled, not only in minuteness and precision of needlework, but in combination of colors and ingenuity of design, imitating, for instance, the scales of fish, the fur of animals, the plumage of birds, the bloom of fruit, and even the dew on flowers with a fidelity of detail impossible to western artists. Among the finest specimens were the ornamental panels prepared for the royal palace at Tokio and exhibited at the Paris Exposition of 1889. Worthy of mention also are the fukusas, or squares of satin or crape, on many of which, now in the possession of the oldest families, are the finest of pictures in needlework. Screens of all sizes and figures, manufactured chiefly at Kyoto, are shipped by thousands to foreign countries; and so with fans, of which, it is said, an American railway company purchases 100,00 a year for advertising purposes. To wall papers applies much that has been said of decorative methods, and especially noticeable is the skill with which they disguise the effect of repetition while preserving uniformity of pattern.

For the manufacture of pottery and porcelains, introduced as is related by Korean priests many centuries before the Christian era, a prominent center is at Nagoya, the donjon tower of whose citadel—a striking specimen of ancient architecture—is surmounted by golden dolphins, one of them, valued at $80,00, forming a portion of the government display at the Vienna Exposition. Here are distributed, as the products of surrounding factories, all grades of porcelains, from the finest egg-shell varieties, decorated in Yokohama for European and American markets to the ceramic nightmares that foreigners are willing to accept and pay for as gems of art. Not far away, and in the same province of Owan is the town of Seto, near which are deposits of clay not inferior to those of Staffordshire and where are made some of the finest articles in softly tinted gray and green found only in Japanese households.

Kiomidzu is famous for its faience; but this also is seldom seen outside of Japan; while at Kinkozan and elsewhere are made by shiploads other ceramic monstrosities in the form of the cream-colored articles with crackled glaze and garish coloring, so largely exported to the United States under the name of Awata, Kyoto, or Satsuma porcelains. The best of real Satsuma pieces are small, are painted by a few artists whose workmanship is familiar only to connoisseurs, and with decorative scheme so exceedingly fine as to require the use of a magnifying glass. But of these the value is not generally known; so that a collection of old Satsuma, purchased in Europe, was sold for thrice its cost in Japan. But perhaps the finest of all and of which there are countless imitations, are the Imari and Hirado vases, with their delicate colorings in blue and white genuine Hirados of ancient pattern being extremely rare and worth many hundreds of dollars. Many of the porcelains made in recent years for export are lacquered, a process which has little to recommend it, except when it serves as groundwork for paintings, often of remarkable beauty both as to color and design. In the Awata district lived not long ago, one Nammiwaka, esteemed as the foremost cloisonné artist in the world, and though those

who few might enter his workshop, did so were well rewarded; for nowhere else could be found such harmony of tone and symphony of hue. Finally it may be remarked that in the depicturing of floral, insect, and animal life, Japanese art-pottery is not inferior to that of Greek or Etruscan workmanship, though in the portrayal of the human figure, they do not of course compare with classic masterpieces. From Japan the art of lacquering was introduced into Europe during the 17th century; but neither in Europe nor elsewhere in the world have Japanese lacquer wares been surpassed in beauty and finish. The finer specimens are remarkably handsome and durable, the hardness of the coatings increasing with age, so that they are proof against acids, and when scratched with a knife they show no trace. Lacquered boxes a few inches square have sold for $500, or more than their weight in gold, and for a screen displayed at the Paris Exposition of 1868 was demanded the sum of $11,000. Ikeda. where is one of the choicest art collections in the empire, is a leading center of this industry; but in the streets of many Chinese cities may be seen tubs of the malodorous dark-colored varnish which the workmen apply in successive coats and at stated intervals, smoothing each layer with their fingers and preparing the article for its design, which is often fashioned in ivory, silver, gold, or precious stones. Some of the choicest specimens represent masters of their craft for months or years; but these are rare and seldom offered for sale.

In metal work the Japanese are equally skillful, and especially in the minuteness and delicacy of their designs, reproducing, for instance, a leaf or flower with all their intricate curves and lines with startling fidelity to nature. And so with bronzes, many of them cast in living forms, to which through processes known only to themselves they impart a singularly graceful and life-like; appearance. Their carvings in ivory, especially the diminutive groups of figures known as nitsukė, are to be seen in the shop-windows of nearly all the larger cities in the United States; but these are for the most part of inferior quality, and by no means represent the skill and inventive faculties of Japanese artisans.

Foremost among the religious centers of the empire is Nikko, or the Brightness of the Sun, its still and shaded avenues, its ancient shrines and sanctuaries, its crumbling tombs and mortuary temples, visited yearly by thousands of white-robed pilgrims, all adding to the fascinations of this the most sacred of the sacred places of Japan. Here was erected, in times whereof no record remains, one of the earliest of Shinto temples, and here was founded, more than 1,100 years ago, a Buddhist fane with which are connected the most cherished of popular legends.

Here also are the mausolea of the great shogun Iycyasu and his grandson Iyemitsu, resting, as for centuries they have rested, under the shade of the consecrated groves which cast on this necropolis of kings and princes a dim cathedral light. Of the numerous structures, not a few of which are still in perfect condition, the most remarkable is a five-storied pagoda, with spiral summit, lacquered walls, and brass-trimmed roof, from the angles of which depend innumerable bells in all varieties of color. Nearby, in an enclosure of trelliswork, is a series of chapels lavishly decorated with gilding and lacquer-work, one of them, the holy of holies, shielded from the gaze of the profanum vulgus. There are also gilded halls and gilded shrines, with the most elaborate of carvings, and in the temple of Iyemitsu are still preserved the sacred writings, the golden lotus-leaves, the tall candelabra, the gongs and banners, and the censer whence issued the fragrant incense in honor of the grand old faith which Gautama Buddha taught.

Of all the countries of antiquity there are none so bare of historic monuments as the kingdom of Korea, which in everything that tends to the betterment of man's estate remains about where it was

when in the twelfth century of the pre-Christian era the nation first appears in history as affording asylum to a Chinese refugee. Buddhist monasteries there are, and temples to Confucius, to Siatsik their patron saint, and Siangtiei their supreme divinity, with pagodas erected in Chinese fashion when Buddhism was the national faith; but apart from the royal palace, if such it can be called, with its massive and lofty walls several miles in circuit, there are no other structures worthy of mention in the hermit land of the present, as of all previous ages. Still the majority of the people live, as ever they lived, in clay or wooden huts a few feet square, thatched with rice-straw, some of them windowless, and none with more than a single story. There is no furniture or nothing that deserves that name the bare earthen floor, with a few cheap mats, serving at once for seat and bed. Their clothing is of the poorest fashioned of coarse cotton cloth with sandals of straw; but for the most part they have a sufficiency of food, though badly and often filthily cooked. Two-thirds at least of the inhabitants are in a condition of serfdom; but above them are many grades, at the head of which are the nobles and government officials, the former proud of above all of their harems and guards of eunuchs. Yet, with all their short-comings the Koreans are noted for their hospitality, their charity, their patriotism, while as among the Chinese learning is held in the highest esteem.

The country is by no means lacking in resources, and especially in mineral deposits, as yet almost untouched, copper and other metals being largely imported, gold mining prohibited, and even the use of coal restricted to certain provinces. The surface is mountainous; but there are many fertile valleys, and especially in the southern portion of the peninsula cereals are raised of all descriptions, with cotton, hemp, tobacco, and ginseng, the last a government monopoly and raised for export to China.

Fruits are plentiful, but of inferior quality, and beans are almost the only vegetable, the planting of potatoes being forbidden for reasons best known to the authorities. Of domesticated animals there are cattle, horses, and swine, sheep and goats being used mainly for sacrificial purposes, while as an article of food the flesh of dogs is preferred to either. Manufactures are but little developed, except that of paper, which is used for a variety of purposes. Roads are few and poor, and wheeled vehicles almost unknown, goods being loaded on the backs of horses and oxen, and the shoulders of human beings. In all the land, except at its capital city of Seoul, there is not a single bridge deserving so to be called. There are no railways; but within recent years telegraph lines have made connection with the Chinese, Japanese, and Russian systems. Internal traffic is conducted at fairs and markets, and the little foreign commerce that exists is chiefly with Japan and China, though cotton goods are largely imported from England.

Such is the hermit kingdom where from time immemorial was acknowledged the suzerainty of China, until an American counselor to the king induced him to shake off the yoke. By Japan the same authority was claimed; and in the light of recent events it would seem that the promise which a Japanese empress made to her husband early in the Christian era will receive a second fulfillment in these closing years of the 19th century. “There is a land to the westward, and in that land there is an abundance of various treasures, dazzling to behold, from gold and silver downward. I will bestow that land upon thee."

Miscellany

The inventory of treasure taken by Sultan Mahmood, founder of the Muhammedan Indian empire at the capture of the Hindu temple of Nagarcote, AD 1005, contained, among other things, according to Ferishta, 700,000 golden dinars, or $1,500,000, 700 maunds of gold and silver plate, 200 maunds of gold in ingots, 2,000 maunds of unwrought silver, and twenty maunds of pearls, corals, diamonds, and rubies. It is asserted that the returns were greater than had ever before been gathered into a royal treasury; and when on his return a triumphal banquet was spread out on a spacious plain, and the spoils of India, exhibited on thrones of gold and tables of gold and silver, they made a pretty show, even for oriental wealth and splendor.

The revenue system of Muhammed Tughlak was peculiar. He increased the land tax between the Ganges and the Jumna in some districts tenfold, in others twentyfold. Husbandmen fled before his tax gatherers and turned robbers. His son, Firuz Tughlak, (1351-88) undertook many public works such as dams across rivers for irrigation, tanks, caravansaries mosques, colleges, hospitals, and bridges. He made the canal which drew its waters from the Jumna, near a point where it leaves the mountains, and connects that river with the Ghaggar and the Sutlej by irrigation ditches.

The pearl fisheries furnished occupation for a special division of the fisher caste of southern India. As Pliny would have us believe, the pearl oysters swam in shoals led by a king oyster distinguished by his superiority in size and coloring. This they aimed at capturing, for then the whole swarm was easily caught; but as long as the king was free he knew how to guide them to places of safety.

By Vinala Sah, a merchant prince, was erected in the eleventh century on Mount Aboo, in the province of Gujart, a temple which was fourteen years in the building and is said to have cost nearly $100,000,000. Externally its surface was plain; but nothing could surpass the richness and magnificence of the interior decorations.

The Kuth Kinar at Delhi is a column of victory built early in the thirteenth century by Kuth-u-din to celebrate his partial conquest of Hindustan. It is 290 feet in height and nearly 50 in diameter at its polygonal base, with balconies encircling the pillar.

Of the Pandavas, writing early in the century, Rajendratala Mitra says: "Close by Indraprastha there happened to be a large forest which the Pandavas burnt down and cleared. The extension of their possessions towards the west and southwest, where they met with little opposition, soon enabled them to assume a high position among the crowned heads of India. A magnificent palace, called Sabha, or audience chamber, was next built in the capital, and it proved to be the finest work of art that had ever been produced in this country. A Titan, Danava, was its architect, and it was enriched with the most precious materials that could be culled from the different parts of India, including some highly-priced stones from the Himalaya. Its description refers to floors of crystal, partitions of glass, and marble of all colors; to spacious and lofty apartments; doors and windows; terraces and gardens; artificial lakes and fountains. Much of this is doubtless due to the poet's imagination; but there was nevertheless enough to make the owner proud of its possession, and to long to show it to his rivals."

Many Indian writers of fiction delight in the idea of a talisman which can satisfy all desires. One of the earliest examples occurs in the Ramajana, where King Visamitra, who would become a Brahman visits

Vasichta the chief of hermits and finds him in the possession of a sacred cow named Sabala, which can provide him with whatsoever he wants. After partaking of a banquet furnished by Sabala, at which were heaped all kinds of food and drink such as befitted a king, Vasamitra offers for her first 100,000 and then 1,000,000 cows, with 14,000 elephants, 11,000 well-bred steeds, chariots of gold, and golden ornaments innumerable: but all in vain. Finally the sovereign carries her away by force; but Sabala runs back, trampling on the soldiers in her flight. Despite the Brahman's protest, she declares that no earthly power can prevail over spiritual might, and calls into existence powerful armies wherewith the hermit vanquishes the hosts of Visamitra. Thereupon the latter retires into the wilderness, where he remains for 100 years in prayer to Mahadera, who sends him in response flaming arrows and other heavenly weapons, wherewith he lays waste the beautiful gardens of the sacred cow. But Visichta raises his scepter, and the monarch's weapons serve him no more. Acknowledging his fault, he returns to the wilderness, and there for 1,000 years lives a life of penance, after which he is permitted to become a Brahman. India absorbs annually about $50,000,000 of the world's gold and silver, in the proportion of $15,000,000 of gold to $35,000,000 of silver.

Among the many native or feudatory states more or less subject to British control one of the wealthiest is Baroda, its capital of the same name containing the royal palace of the gaikwars, richly furnished and of enormous size. Some of the chambers, thickly walled and with iron doors, are used for the treasury, the contents of which are at times displayed to visitors. Rousselet, who was thus favored in 1865, tells how the servants displayed to him a dazzling collection of diadems, necklaces, bracelets, rings, diamonds, and costumes embroidered with the finest of pearls and precious stones. In one of the necklaces, among the most valuable in the world, were several brilliants of remarkable size including the famous Star of the South and Star of Dresden. The former, purchased in the previous year, was conveyed into the city after the manner of a triumphal entry, and carried to the temple to be blessed by the priests. Among the vast procession which attended it were the nobles of the realm, all wearing a profusion of gems and golden ornaments, and mounted on horses covered with richly embroidered trappings. Then came the ministers and other high functionaries, seated in silver howdahs carried by elephants with drapery of gold-fringed velvet hanging to the ground. In a massive golden howdah ablaze with jewels, a present from England's queen, was the gaikwar himself, attired in a tunic of purple velvet studded with costly jewels, and on his turban an aigrette of diamonds, among them the Star of the South.

In the island of Jugnavas Rousselet mentions a series of palaces built by the rajah Juggut Singh, extending over 160 acres, all constructed entirely of marble, with reception halls, kiosks, and chambers of most finished workmanship, richly adorned with mosaics and historic frescoes.

There was nothing splendid about them; but they were elegant and comfortable, each one having its garden shaded with stately tamarind and mango trees.

While Christendom long held the age of the earth at 6,000 years, the Chinese with their own history and mythology went back 30,000 years. Now come modern scientists with estimates of age, Darwin 200,000,000 years; Lyell, 240,000,000; Geikie, 73,000,000; Clarence King, 24,000,000 and Winchell, 25,000,000 years. C. D. Walcott, of Washington, estimates that 1,200,000 years were required to deposit the 6,000 feet of limestone over the 400,000 square miles of Utah and Nevada, and for the deposits of shales and sandstones to the thickness of 15,000 feet he allows 16,000,000 years. He places the age of the earth at 45,000,000 years.

At Peking the Great Wall of China is 50 feet in height, and varies from 60 to 40 in width. From its summit there is little to be seen except for a monotonous expanse of f lat-roofed dwellings, interspersed with foliage and here and there a temple tower or pagoda. Proceeding along the top of the wall for a mile or two from its principal gate we come to the observatory erected in 1668 by the Jesuit Father Verbiest, and where are bronze astronomical instruments of his own construction. In a garden not far away are still preserved the instruments which Marco Polo describes, including a globe and sextant and the zodiacal sphere, fashioned during the reign of Kublai Khan and of most delicate design. To defend China would require fewer men than to defend the wall of China.

Near Hang-chow-foo is one of the most ancient of Chinese temples called the tower of the Thundering Winds, and said to have been erected some 2,500 years ago.

The emperor of China has many titles, and among them is the Lord of Ten Thousand Isles, for islands are as numerous as on the western coast of Scotland, and on one of them is built the city of Hong Kong.

By the emperor Yong-lo was erected the famous porcelain tower of Nanking, one of the most valuable specimens of Chinese art, and so-called from the white porcelain tiles with which the brickwork is covered. It is nine stories in height, octagonal in shape, and with most accurate and graceful proportions. At every corner hangs a bell and around each story is a balustrade of green porcelain. Within are many deities and in the hope of gaining their favor money in large sums is handed to the priests at all religious festivals.

The canonical works acknowledged by the 80,000,000 disciples of Confucius are in five parts, and are called King, that is to say The Books. These writings have largely influenced the Chinese mind and morals, and indeed it is not easy to imagine what China would be without them. The sacred books of Buddha, with his 500,000,000 devotees, are in 115 volumes. The Koran, though small, is sufficient for the 200,000,000 disciples of Muhammed. The Vedas of the Hindus are in four books, for the Zend Avesta of the Persians with its 2,000,000 verses, Zoroaster is said to have covered 12,000 cow-skin parchments with his characters. The Kojiki, or Japanese book of ancient traditions was compiled at an early date.

The choicest of Chinese porcelains are manufactured at King- techin in the province of Keangsy, erected some 900 years ago and still employing many thousands of operatives.

Of the 1,500,000,000 or more inhabitants of earth, increasing at the rate of some 3,000,000 a year, more than one-half dwell in Asia, nearly 400,000,000 are Chinese and more than 40,000,000 Japanese. The population of Europe is estimated at 370,000,000; of Africa, 150,000,000; and of America and the islands adjacent, 152,000,000. In color there are but 300,000,000 white men, most of the remainder being black, dusky, yellowish, or copper-colored. Only one-fifth of the human race are clothed in civilized garb; about one-half are partially clad, and the remainder are naked, except for a breech cloth. Nearly one-half of mankind live in huts, tents, or caves; one-fifth, perhaps, in houses worthy of the name, and the rest are homeless, sleeping on whatever spot of earth they happen to be when night overtakes them.

Chowfa Maha Vajirunhis, crown prince of Siam, died of asthma on the 4th of January, 1895. He was but sixteen years of age, and at twelve was declared heir to the throne with costly and imposing

ceremony; the boy receiving the homage of the people as he rode in state through the streets. He was a lad of kindly disposition, intelligent and well educated, speaking English and other languages almost as fluently as his own.

As to the recent progress of Japan we have a striking example in the city of Yokohama, which is practically the port of Tokio and of the northeastern section of the empire, none of the other treaty ports exceeding its volume of commerce.

Before the treaty of 1859 it was merely a fishing village: but after that date foreigners began to arrive; a town was laid out; the swamps were filled in; roads constructed, and wharves, piers and breakwaters built for the shelter and accommodation of all classes of shipping. For 1892 its imports and exports exceeded $60,000,000, almost doubling within a decade, and forming nearly one-third of the entire foreign commerce of Japan.

Tokio, called Yedo until it became the imperial city, had in 1892 a population of 1,155,000, and even then was less crowded than New York; for it contained 277,000 houses, or about four to each dwelling. Public buildings were numerous, many of them comparing favorably in structural design with those of the United States. There were about 80 banks, including branch offices, at least as many large commercial firms, and more than 100 factories, with product and stock exchanges, a chamber of commerce, and industrial exposition buildings. Several railroad lines had their terminus at Tokio, and there were extensive telegraph and telephone systems, with gas and electric lights.

Kyoto, for more than 1,000 years the capital of the empire, had at the same date a population of 290,000, and was a large manufacturing center, especially for embroideries and other textile fabrics, porcelains, copper and lacquered wares. Osaka had 474,000 inhabitants, and for more than two centuries has been a great commercial emporium, its foreign commerce being now conducted largely through the adjacent port of Kobe, since the entrance to its bay is obstructed by bars and shallows. Here is the main arsenal of Japan and a mint equipped with the best of modern machinery in which is a large collection of native and foreign coins, the former complete from the earliest times. In 1885 the city was almost destroyed by flood, only a few business blocks remaining above water, while 146 bridges and thousands of dwellings collapsed like houses built of cards. The surrounding plain became a lake, and a typhoon accompanied by torrents of rain deluged the adjoining districts. Of this disaster few traces now remain, for Osaka is the Chicago of Japan, with its board of trade its bustle of traffic and its wonderful recuperative powers. Nagasaki, situated on one of the most picturesque harbors in the world, an inlet from the great inland sea of Japan, has lost much of the commercial importance of former years, when it was the principal trading port with foreign lands. It has a dry-dock which cost $1,000,000, and nearby are coal mines of large extent and easily worked; so that here is a favorite coaling station for the navies of Europe and the United States.

Trade-unions are numerous in Japan with more than 2,000 in existence in 1892, their object being less to maintain rates of wages than to improve the quality and establish the reputation of manufactures. There are also merchants' and artisans' clubs or associations, where competitive exhibitions are held and commercial and industrial questions discussed. At more than a dozen rice-exchanges, the outcome of the rice market established by Osaka merchants early in the seventeenth century, transactions are conducted somewhat as on the Chicago board of trade. In 1877 a stock exchange was established at Tokio, and later at other cities, dealing not only in stocks and government

bonds, but in produce and fertilizing substances. Finally there are about 3,000 joint-stock companies, with an aggregate capital exceeding $200,000,000.

Industrial pursuits are classified into those which are original and those which are introduced. The former are by far the numerous, and though still carried on with primitive implements, the processes show little trace of those which were borrowed from China and Korea many centuries ago. Chief among the latter are cotton-spinning, glass and brick-making, the manufacture of machinery, and the preparation of drugs and chemicals, these and others being conducted on an extensive scale and with the use of steam and water power.

About the year 1548 appears in Japan the Portuguese missionary Xavier, with two others, come to prepare the way for Christianity and for the gathering of gold; so that between 1550 and 1639 their countrymen claim to have shipped bullion to the value of $300,000,000. Early in the seventeenth century the Dutch begin to trade with the empire, and with the permission of the Mikado build a factory at Hirado, obtaining during the period 1609 to 1858 nearly $75,000,000 in gold, $140,000,000 in silver, and of copper 200,000 tons. Meanwhile, during the reign of James I, the English East India company had developed a moderate traffic, increasing later to three or four millions of dollars a year, with large homeward shipments of the precious metals. To stop this drain of treasure foreign commerce was restricted by various edicts, as in 1685, when it was limited to transactions of small amount with Holland and China. Nevertheless it continued cargoes of silk, cotton, wine, sugar, and other commodities being exchanged on the open sea for copper sulfur, camphor, and above all, for gold and silver. American influence dates from the visit of Perry in 1854, where after these far off and isolated people of Zupangu quickly awoke from their slumber of centuries.

Li Houng, late king of Korea, succeeded to the throne in 1864 when only 13 years of age. He was a well-meaning but weak-minded sovereign, and completely under the sway of his wife, a woman of strong intelligence and decided character. Unlike her subjects of the wealthier class the queen wore no jewelry, unless the heavy gold rings on her fingers can so be called. Scribes were employed in the royal palace to keep a record of everything the monarch said or did. The system of government is complex. The king is assisted by ministers named the worshipful counselor and the counselors of the left and right. The ministers are advised by judges, each of whom has his own adviser, and is in charge of some department of state. The provinces are under the control of governors responsible to the ministerial council, and are divided into more than 300 districts in charge of mandarins. The land tax is the principal source of revenue, and is usually paid in kind.

Chapter the Fifth: Central and Southeastern Asia, the Malay Archipelago, and Polynesia

There is no place in town which I so much love to frequent as the Royal Exchange. Factors in the trading world are what ambassadors are in the politic world; they negotiate affairs, conclude treaties, and maintain a good correspondence between those wealthy societies of men that are divided from one another by seas and oceans, or live on the different extremities of a continent. I have often been pleased to hear disputes adjusted between an inhabitant of Japan and an alderman of London, or to see a subject of the Great Mogul entering into a league with one of the czars of Muscovy. I am infinitely delighted in mixing with these several ministers of commerce, as they are distinguished by their different walks and different languages; sometimes I am jostled among a body of Armenians; sometimes I am lost in a crowd of Jews; and sometimes make one in a group of Dutchmen. Nature seems to have taken a peculiar care to disseminate the blessings among the different regions of the world, with an eye to this mutual intercourse and traffic among mankind, that the natives of the several parts of the globe might have a Kind of dependence upon one another, and be united together by their common interest. For these reasons there are not more useful members in the commonwealth than merchants. They knit mankind together in a natural intercourse of good offices, distribute the gifts of nature, find work for the poor, add wealth to the rich, and magnificence to the great. Our English merchant converts the tin of his own country into gold, and exchanges his wool for rubies. The Mahometans are clothed in our British manufacture, and the inhabitants of the frozen zone warmed with the fleece of our sheep.

In the preceding chapters I have briefly sketched the annals of the great empires of antiquity on the two older continents. But there are yet to be described on these continents nations almost as ancient, if not as famous, as were the Babylonians and Assyrians, the Egyptians and Phoenicians, of all of which mention is required in a work whose theme is the wealth of the world. The remaining countries of Asia, and the islands thickly clustered in the East Indian archipelago and in Polynesia, will form the subject of the present chapter, Africa being reserved for later description, since recent explorations and discoveries are the principal topics of interest pertaining to that continent.

Beginning therefore with the Chinese dependencies, let us turn to Mongolia, of which there are few authentic records until the reign of Genghis Khan, who at his death, in 1227, bequeathed to his sons an empire extending from the China sea into the heart of modern Russia.

By Ogdai, his second son was completed the conquest of northern China, and a few years later the Mongol armies extended his kingdom in all directions, to Korea, to the central provinces of China, to western Asia, and far into the center of Europe. With fire and sword these destroying hordes laid waste the Countries through which they passed, committing the most hideous atrocities and sparing none save those who could minister to their needs or lusts. Ryazan, Moscow, Vladimir, and Kieff they captured with little resistance, and there were enacted such nameless horrors that, as was said, "no eye remained open to weep for the dead." Men and women were roasted or flayed alive; some were impaled, and under the nails of others were driven splinters of wood. At Vladimir a host of fugitives, among whom was the royal family, perished in the flames which laid in ashes the cathedral whither

they had fled for refuge. At Kieff hundreds were buried under the flat roof of a church which gave way beneath the crush of those who sought escape from the general massacre. Advancing into Poland and Hungary, the Tartars defeated the opposing forces, taking the Hungarians by surprise and strewing the road with their corpses for a score of miles beyond the battlefield. At their approach the people of Cracow and Liegnitz burned their cities to the ground, leaving as spoils for the conquerors the blackened walls of their former homes. Further outrages were stayed only by the demise of Ogdai, who with half the world at his feet gave himself over to debauchery and died a drunkard's death.

Early in the reign of Mangu, nephew of Ogdai, his capital was visited by Christian monks, one of whom gives a description of the royal palace, somewhat in contrast with the tents and camping grounds of his ancestors. In its central hall, with nave and aisles divided by columns, sat the members of the court on state occasions. Here also was the throne of the khan, in front of which was a tree of silver, with lions at the base, from whose mouths spouted into silver basins, wine, koumiss, and mead. Above the tree the figure of an angel, also fashioned in silver, sounded a trumpet at intervals, as a signal to replenish the tanks of liquor beneath. During the administration of Mangu, the empire was further extended by conquests of his brother Hulagu, and a disturbance in the province of Persia was quelled with the usual barbarity. Baghdad, for centuries the seat of eastern culture wealth and learning, was for seven days subjected to pillage and massacre, with the sacrifice of hundreds of thousands of lives and hundreds of millions in booty. Famine in its direst form followed in the footsteps of the Tartars; but marching onward into Syria, Aleppo was sacked, Damascus captured, and when summoned homeward by tidings of his brother's death, Hulagu was planning an attack on Jerusalem.

To Mangu succeeded his younger brother Kublai, of whose exploits sufficient mention has been made. It remains, however, to be said that his campaigns were conducted with humanity, and that for the first time perhaps in the annals of Mongol warfare, the lives of the captured were spared. Then follows a succession of khakans, or chief khans, as to whom there is little of special interest. Though appointed usually by right of primogeniture, the right was confirmed election with attendant ceremonies and lavish dispensation of presents. After the election for instance of Kubluk Khan, nephew to Kublais son and successor he was raised aloft by princes of the blood, and while prayers for his welfare were being offered by the shamans, the ground was covered with pearls, and donations distributed from vehicles filled with gold and costly fabrics. Then came an entire week of feasting, during which were consumed several hundred oxen and many thousands of sheep.

At Peking, or Yenking, as was christened the city built anew by Kublai Khan was now the Tartar capital, afterward known to the Mongolians as the Khanbalik, or city of the Khan. Here, for three years during the reign of Yissun Timur sojourned the Franciscan friar Odoric, who gives an interesting description of the royal palace, written, doubtless, after his return to Europe in 1329. The walls were hung with red leather of finest quality, and within were four and twenty pillars of gold. Almost in the center stood a huge vessel several feet in height and fashioned of a stone so precious as to be worth a city's ransom. Into this vessel wine was conveyed by pipes, and around it were golden goblets from which those might drink who would. When the khan took his seat on the throne, the queen sat on his left, and a step below him were two of the ladies of his court, the remainder standing at the foot.

All the married women wore head-dresses adorned with the feathers of cranes and with the finest and largest pearls that the realms of the sovereign contained.

With the reign of Yissun Timur comes to an end the magnificence of the Tartar empire, and presently the empire itself. The monarchs who followed were noted only for gross dissipation and licentiousness, leaving the affairs of the kingdom in the hands of ministers who were not slow to follow their example. As the natural result came discontent and disorder, further increased by disastrous floods which destroyed many thousands of homes, and by earthquakes which laid entire provinces in ruins. By one of the most violent shocks was demolished the temple of the Imperial Ancestors, and from its altars were stolen the silver tablets of the khans. To prevent the periodical overflow of the Yellow river, Toghon Timur, the last of the sovereigns descended from the house of Genghis Khan, levied a burdensome tax for the construction of a new channel, a work that required the enforced labor of 60,000 men. Then came insurrection, headed by a Buddhist priest, whose raw recruits defeated the trained soldiery of the empire. Province after province yielded to the rebels; cities opened their gates, and finally Peking was captured. Toghon betook himself to flight; the Buddhist priest, and the Tartar the Hidalgo of his countrymen, ascended the throne as the first of the great Ming dynasty, invaders were driven back to their pasture grounds.

Soon afterward the Mongols were disintegrated as a nation, and divided into many branches whose fortunes we cannot follow. Some retained their independence for several centuries, ever engaging in wars that resulted in alternate victory and defeat; but one by one they fell under Russian or Chinese domination, the former power absorbing the best of their territory, while that which now remains to the latter is little better than a desert waste. In all Mongolia, with nearly 1,300,000 square miles of territory, there are barely 2,000,000 inhabitants, divided into a number of petty tribes, of which the Turkis in the western portion are among the most barbarous of human of horses and beings. The rearing of cattle and sheep, camels is the chief and almost the only industry; for rain falls seldom and in the smallest quantities, restricting agriculture to the mountain slopes, where melting snows supply the needed moisture. Such wealth as exists is in the form of flocks and herds, and there are few towns or even villages worthy of the name.

The Manchus. or people of Manchuria, first appear in history as a group of nomad tribes paying tribute to China in gold, hawks, and arrowheads fashioned of stone. Later they invaded the Chinese empire and there established dynasties, first the Leaon or Iron, and then the Ken or Golden dynasty; for, said the founder of the latter, by whom its title was adopted, "iron rusts, but gold never loses its purity and color." Expelled by Genghis Khan, the Manchus fell into obscurity until, under Nohachi, they regained their foothold in the northern provinces. Near the middle of the seventeenth century they were invited to suppress a rebellion with which the imperial forces were unable to cope; but this accomplished, instead of returning homeward, they advanced on Peking, and there proclaimed, under the title of Shunche, the first emperor of the present dynasty.

But while China has been ruled for centuries by Manchu sovereigns, Manchuria is not as yet a Chinese province, though promising soon to become so; for most of its people are Chinamen, and the Chinese language is taught in all its schools. Both are essentially agricultural communities, indigo being largely cultivated in the southern plains, and the poppy wherever it will grow; for the latter is the most profitable of all the crops, among which are also cereals, cotton, and tobacco. In minerals the country is exceedingly rich; gold, gems, iron, and coal being found in such quantities as with the use of

modern appliances should insure an ample return. Its flora resembles closely that of England, and in its fauna are included nearly all the wild animals found in Europe. The rivers abound with fish, and especially with salmon, which at certain seasons appear in swarms even larger than those which frequent Alaskan rivers; so that in the smaller streams thousands are crowded out of the water by those below, and east upon the ground.

Hence probably the legend of the Manchurian Phaeton, a prince of supernatural birth, who, coming to a broad river over which there was no bridge nor other means of crossing, cried to his father for help: whereupon fish came to the surface in shoals so compact that he walked upon them to the opposite bank.

Moukden, or as in the Chinese, Shing Yang, the capital of Manchuria, is a city of some importance in the southern or Leaon-tung province, with its 12,000,000 or 13,000,000 inhabitants, of whom perhaps 250,000 are denizens of the metropolis. Its streets are wide and regular, and its shops well stored with goods. Around it is a wall of imposing aspect, pierced with several gates, and within which are duplicated the famous drum tower and great bells of Peking. Of Leaon-yang, the former capital, much of its site, where once were busy marts of trade, has been converted into vegetable gardens. At the present day commerce centers mainly in the treaty port of Yingtsze, the Principal Street of which a league in length, is lined with stores and warehouses its foreign and internal trade probably exceeding $20,000,000 a year.

East Turkestan was a dependency of China as early as the first century of our era; but the yoke sat lightly on her people and was easily shaken off. Then came a succession of invaders and first the Ghetes, a horde of whom, driven by the Huns from Mongolia roamed, through the great plateau of eastern Asia. In the seventh and eighth centuries this region, in common with other portions of western China, was occupied at intervals by the Tibetans, who presently gave way to the Turks, and these again to the Tartars, the country forming a portion of the great empire conquered by Genghis and Kublai Khan. But throughout these and other changes China never entirely lost her hold on what is now termed Eastern or Chinese Turkestan, the defeat, in 1879, of the last of many insurrections completing its subjugation. Silk and cotton are the chief articles of export, and these and leather together with copper, iron, and leather goods are manufactured to a limited extent; but stock-raising on the pasturage of the foot-hills is the leading industry and the principal source of wealth. Gold has been found both in alluvial and quartz deposits, especially in the district and near the city of Khotan, where also are precious stones, jade, antimony, copper, iron, and coal, with sulfur and saltpeter here and elsewhere widely distributed. Commerce is of course insignificant; much more so than in the days of antiquity, when east Turkestan was on the route of numberless caravans journeying westward from China. Kasghar on the Tuman River, with a population of perhaps 120,000, is the chief emporium of trade. Near the old quarter of the town called Kuhna Shahr, surrounded with turreted and bastioned walls, are the ruins of a larger city, destroyed in 1514 during the invasion of Said Khan.

Nearby are the mausoleum and shrine of a king worshipped after death as the patron saint of the country, and an edifice surrounded with gardens and orchards, serving at once as mosque and monastery. The new quarter, or Yangi Shahr as it is termed, is also encompassed with bastioned and turreted walls; but as all the fortifications are of mud and rest on a porous, well-watered soil, they are probably more of a threat than a protection to the inhabitants. Until recent years Kasghar was the seat of government and here about the year 1870, Yakub Beg, who then held sway over the land, wrested

for a time from Chinese domination, built unto himself a palace, with a spacious enclosure for the three hundred women of his harem.

As the greater portion of cane bridge west Turkestan has been absorbed in the Russian empire, most of the surface now virtually forming a portion of south-western Siberia, and with much of the remainder under Russian domination, it will be treated later in that connection.

Tibet is for the most part only a Chinese dependency in name, while many portions are the domain of the wild beast rather than of man. Except by nomad tribes, only the southern regions are inhabited; for the country is extremely mountainous, with table-lands 10,000 to 18,000 feet above the level of the sea, and chains and peaks from 20,000 to 25,000 feet in height. None of the invading hordes, which from the highlands of central Asia forced their way through Himalayan passes into the fertile plains of India, passed through the wilderness of Tibet, even Genghis Khan avoiding these bleak and desert wastes. To the outside world it was entirely unknown, an Italian friar who made his way to Lhasa about the year 1328 being probably the first to enter, though on his first public mission in the service of Kublai Khan, Marco Polo passed through its border on his way to northern Burma. Most of its 700,000 square miles of area is still unexplored, and probably will long remain so; for to Europeans it is a forbidden realm, and one from which chance traders and travelers are speedily expelled.

To the Chinese portions of Tibet were known at least as early as the eleventh century of the pre-Christian era; but not until many centuries later are there authentic records of Tibetan dynasties and kings. Since time immemorial wild animals, especially the yak, have roamed in countless herds over the northern plateaus, the milk of the female being used for the moistening of cement, as in the building of the palace of Namrisrongbtsan, by whom was discovered the largest salt mine in the world, its yield still undiminished after the lapse of 1,300 years. To this monarch was also attributed the first knowledge of arithmetic, and to his son and successor, by whom was founded in 639 the city of Lhasa, the Hindu alphabet and the art of writing. Of Muni Btsanpo, in direct line of succession, whose reign began in 743, it is related that, for the purpose of placing all his subjects on an equality, he ordered the rich to share their possessions with the poor; but though several times repeated, the result of this experiment was always the same; that each class returned to its former condition, or rather that the one increased in wealth and the other was sunk still deeper in poverty.

Without following further various dynasties, including reign of the lamas, until in the eighteenth century Tibet became a dependency of China, let us turn to its capital, Lhasa, or God's ground, where are many architectural monuments. First of all may be mentioned the monastery of Buddha La, a little outside the city limits, where resided the Delai lama, the Tibetan deity in the flesh, and here the chief, if not the sole object of worship, though elsewhere are minor and local incarnations. The central structure is surmounted by a gilded dome and enriched by a peristyle of gilded columns, beyond which are smaller buildings for the housing of the priests. Within the city are more pretentious edifices, and especially the temple and palace of Labrang, the St Peter's of Buddhism in Tibet and also the center of civil administration, whence radiate, as from ancient Rome, all the great public roads. In the chancel of the temple are the thrones of the Grand Lama and of Buddha, near which are large disks of silver inlaid with precious stones and inscribed with Buddhist symbols. There are also vast stores of gold and silver lamps and vessels, exposed to public gaze only at the spring festivities.

In no country in the world are there so many monasteries as in Tibet, some of them containing from 2,000 to 3,000 priests, all pledged to celibacy and living together in communities. Though some are not without beauty of design, they are for the most part mere rows of cells, grouped around courtyards, in the center of which is an altar or shrine. In the district of Lhasa alone are thirty large and scores of smaller establishments, with the capital as their center, as the seat also of a Tibetan papacy, and the goal of pilgrimage from far and near. Here come by thousands the devout and the greedy of gain, the former to worship the living Buddha and to ask forgiveness of sins, returning as do the Mohammadans from Mecca, with store of relics manufactured for sale to the unwary.

On a rocky eminence in the suburbs of Lhasa is the Potala, on the summit of which are the it palace and temple of the grand lama, a majestic group of buildings, whence the great potentate looks down on thousands of his votaries kneeling before the sacred hill as they count the beads of Buddhist rosaries. Elsewhere are other palaces, temples, and pavilions glittering with gold and silver, their walls and ceilings covered with richest draperies of silk.

In the midst of a lake near the foot of the hill is the garden of the Tibetan pope, who in one of his several villas adjacent to the city receives at times the minor, or Teshu lama the two Buddhas incarnate drinking tea together.

In the city itself most of its 80,000 inhabitants except, priests and students live in dwellings of clay and sundried brick with houses of stone and brick for the wealthier classes, and some constructed entirely of horns held together with mortar, these the most picturesque and by no means the least substantial. Here and at Shigatze mainly centers the trade of a country where all are traders, commerce being conducted by caravans and at local fairs. From China come brick-tea, silks, and carpets; from Mongolia, leather goods and livestock; from Nepal, sugar spices and other Indian products, and from various countries, rice, tobacco, and a large variety of goods; but tea is the principal commodity, for this the Tibetan a necessary of life, and is imported at the rate of at least 12,000,000 pounds a year. Exports are chiefly of silver and gold, of salt, sulfur, and borax, and of wool and woolen fabrics; for wool is the staple product, and the coarse cloth fashioned by women about the only form of manufacture, except for a little jewelry and such weapons as are needed for domestic use. Agriculture, except in the most favored regions, is impracticable, grains and fruits being raised only in the valleys and to a small extent. Wild and domesticated animals are in abundant supply, and of metals, in addition to those already mentioned, there are iron, copper, and tin, though mining and metallurgy are restricted through lack of fuel, for which are largely used the argols of the antelope and yak. In Tibet the houses even of the rich have few comforts. Besides a box in which valuables are kept, there is a table, a fire-pan, and a few cushions. In the middle of the room is a stone on which pieces of pitch pine are burned by way of fire, and for light a bowl of butter with lighted wick which glimmers on dingy roof and stone walls.

Of Afghanistan may first be mentioned its antiquities; for few Asiatic, countries are richer in remains that bear silent witness to the past. In the plains of Peshawar and elsewhere are the ruins of many cities and villages, of many monasteries, dhagobas, topes, and temple caves, with sculptures suggestive of Greek art, probably introduced by those who accompanied the expedition of Alexander the Great: for at Beghram and elsewhere have been found many thousands of Greek coins belonging to the period in which he lived and conquered.

At Talash and on the hills skirting the Peshawar valley are the remnants of massive fortifications of ancient but unknown date. Of many architectural monuments all traces have disappeared, as of the dhagoba erected by King Kanishka in Peshawar, and described by Fa Hian, who passed through that province about the year 200 AD, as "more than 470 feet in height, and decorated with every sort of precious substance, so that all who passed by and saw the exquisite beauty and graceful proportions of the tower and the temple attached to it exclaimed in delight that it was incomparable.” From the stages of this tower were taken, as related by Hiouen Thsang some two centuries ago, ten bushels of Buddhist relics; for Buddhism was long the prevailing religion of Afghanistan, and of this there are many things to remind us.

At Kabul, or Cabul, on the river of that name, formerly a walled town and probably on the line of Alexander's march to India, sacred shrines are plentiful amid its terraced gardens, and not far away, on a hill overlooking his chosen city and the fertile plain that surrounds it, is the tomb of the sultan Baber, a descendant of Genghis Khan and the founder of the Mogul dynasty. Here Baber reigned fifteen years before undertaking the expedition which gave to him the empire of India; for he loved well this city of which he said that within two hours' journey from it one might find a place where the snow never melts, and within one day's journey a region where snow never falls. Though still the capital it is not an attractive spot with streets, no better than lanes, not wide enough for the passage of vehicles, with buildings of wood and sun-dried brick, and without public edifices worthy of description. Mosques are numerous; but among them are none that compare in beauty or magnificence with those of Hindustan. Industries are concentrated among guilds or crafts, and trade is conducted in bazaars, the finest of which erected in the seventeenth century, was destroyed by the British as a measure of reprisal for the treachery of the inhabitants.

Kandahar, the largest of Afghan cities, is built almost entirely of mud, and of mud is its surrounding wall, nearly four miles in circumference and about 30 feet in height. Of its 200 mosques there are none that need description, and except for the tomb of Ahmed Shah, there are no architectural monuments. A little to the west is the ancient city of Kandahar, founded, as is said, by Alexander the Great, and sacked in 1738 by Nadir Shah. Little of it now remains, except for the citadel overlooking its crumbling ruins, and a flight of steps cut from the solid rock, leading to a dome-covered recess, where is recorded in Persian inscriptions carved in relief the vast extent of the domain of Sultan Baber. In the modern town are nearly 2,000 shops and bazaars, the latter well stored with Asiatic and English goods, cotton fabrics forming the bulk of the imports and wool and fruits of exports. Imported commodities are highly taxed, sometimes as much as 30 percent of their value, the proceeds being applied toward the expenses of the city and province. In the tariff are many curious items, as a charge of one rupee per capita on slave girls, together with five percent ad valorem.

Herat, which has been termed the key of India, though early in the century with a population of 100,000, is now little more than an immense redoubt, within which, apart from the garrison, are 20,000 or 30,000 inhabitants. Its earthworks are on a stupendous scale, four miles in circuit, more than 200 feet in width at the base, 50 in height, surmounted by a wall 25 feet high, on which are scores of towers, and protected by a ditch more than 40 feet wide and 15 in depth. Though it could probably offer but little resistance to a modern European army, it was strong enough to withstand, in 1837, a ten months’ siege by 35,000 Persian troops, well supplied with artillery and aided by Russian officers. Herat is an ancient city, so ancient indeed that as to its origin there are none but traditional records, its name first appearing as among the earliest of Zoroastrian settlements. Far along the

slopes of adjacent hills extend the ruins of a much greater city, containing, it is said, more than 1,000,000 inhabitants, and of which the present town was little more than the citadel. Here are the remains of palatial edifices, bearing witness to the architectural grandeur of a metropolis that in bygone ages was the wonder of surrounding nations. Not even in India are there more imposing ruins than those of the mosque of Mosella, erected in the twelfth century and rebuilt in the fifteenth as the final resting plate of the imam Reza. Portions of it still remain, the body of the structure, surmounted by a spacious dome, being covered with glazed bricks in tessellated patterns of artistic design, the seven minarets, all of beautiful workmanship, yet almost intact, as are several of the arcades, whose massive proportions are suggestive of Assyrian architecture. Nearby, and adjacent to the marble mausoleums of the house of Timur is the tomb of Abdullah, erected centuries ago by the grandson of the great Conqueror, and containing some of the finest specimens of oriental sculpture. Here also was buried the famous Dost Mohammad Khan, by whom the city and province of Herat were incorporated in the Afghan monarchy. Nor should we forget the royal palaces from the terraced gardens of which, watered with running streams and shaded with stately plane trees, is a view of one of the most fertile plains in southern Asia.

In contrast with these glories of the past is the city of today, with its dilapidated and half deserted dwellings of mud and brick, its streets without drainage or sewerage, and except for a mosque erected by a member of the Timur family, with no architectural monuments worthy of the name.

Of Kashmir, the most valuable portion is the vale whose beauties were celebrated by Mohammadan writers long before Moore reproduced them in romance. It is a sheltered and smiling valley, its bright, fresh verdure encircled in spring with glistening snow-crowned ranges, while autumn affords striking combinations of foliage tinted in the richest of hues, and at all seasons of the year between stately groves and avenues and quaint, tall, shadowy buildings, flows onward the smooth-gliding river. Grain of various kinds is grown in abundance, and except for rice without irrigation. Of fruits and vegetables there are many varieties, and on mountain slopes and foothills is a large supply of useful timber. Apart from the valley, which forms only a small portion of the domains of the maharajah, the resources are chiefly in the form of minerals, though these are not wanting in the valley itself, consisting chiefly of the useful metals and building and ornamental stones. Of manufactures there is a considerable volume, especially at Strinagar, the capital, an ancient city whose crowded, narrow streets, lined with overhanging houses whose upper stories are supported on poles, are relieved with pleasure gardens, mosques, and temples. Here are chiefly made the famous Cashmere shawls, though less in favor than in former years. Silks and embroideries are largely produced, and there are vases, goblets, and other useful and ornamental articles pertaining to the goldsmith's, silversmith's, and coppersmith's art.

Ruins are plentiful; for Kashmir is among the oldest of Asiatic countries, its earliest emir of Bokhara as is shown in their ancient town inhabitants belonging to the tree and serpent worshippers, of Anantnag, which signifies the eternal snake. In the valley are many remains of the Hindu period with traces of Hellenic art probably belonging to the Graeco-Bactrian era, the most ancient being those of the temple reared on the hill named Tukht-i-Soliman or Solomon's throne. At Matan is a temple of the sun and elsewhere are numerous fanes and shrines, many of them in shattered condition, for earthquakes are frequent.

Of Baluchistan nothing was known until the days of Alexander the Great, whose march through this region, together with the region itself, is described by Arrian the historian of his campaigns. As it was in the days of Alexander so, the country and its people remain almost unchanged today. The surface is rugged, mountainous, barren, and in many portions such is the scarcity of water that as Arrian relates, it could only be obtained by digging into the beds of former rivers and torrents.

Of the inhabitants, fish and fruit were almost the only sustenance, and to support an army was impossible; the Macedonian conqueror losing by famine in these desert wastes more men than had fallen by the sword in all his encounters with the Persians. At present, however, the Baluches consume enormous quantities of flesh in a half raw state and in whatsoever form it can be obtained, not refusing even that of the camel: but their principal food is milk, and that which is made of milk with bread or boiled, wheat, onions, garlic, and all such stimulating condiments as they can purchase or steal. In several of the provinces cereals, cotton, tobacco, indigo, and madder are produced to a limited extent; and in the single province of Cutch-Gundara, with its rich, loamy soil, could be raised crops sufficient for the entire population of Baluchistan, some halt a million in number. Domestic animals are plentiful, and of minerals there are gold, silver, antimony, tin, lead, iron, and coal, with alum, saltpeter, and mineral salts, most of them in abundant supply. While the country is in a measure feudatory to the British crown, its nominal rulers are the khans of Khelat, who preside with doubtful authority over a number of minor chieftains, collecting an uncertain revenue from tribes which do or disobey their bidding, as suits their interest and convenience. Khelat, the capital, lies about 7,000 feet above the level of the sea, and beneath it is a fertile plain where are cultivated many of the grains and some of the fruits of temperate and subtropical climes.

Turning to south-eastern Asia, may first be mentioned the Burmese empire, formerly a country of vast extent, and still with nearly 200,000 square miles of territory, as now contracted by British conquest, shorn of its seaboard and with only small tracts remaining of its rich alluvial plains, it is for the most part an upland region, rich in minerals and forest growth, and by no means deficient in other resources. Gold exists in the sands of various rivers, and silver in the mountains adjacent to the Chinese frontier. The ruby and sapphire, the topaz, and amethyst are obtained in various districts. Copper iron and tin; sulfur salt niter and petroleum are also fairly abundant, though little utilized except the last, the yield of which permits a considerable export. Teak is perhaps the most valuable timber: but nearly all the varieties common to India are found in Burmese forests, where is the home of the elephant and rhinoceros, the leopard, and deer of several species: the buffalo, ox, and horse being the only domesticated animals, though smaller stock are kept tor curiosity rather than use.

Mandalay, the capital of independent Burma, is surrounded with a crenellated wall 26 feet in height, about five miles in circuit, and with a moat 100 feet broad, the gates, of which there are three on each side, being surmounted by watchtowers. In one of the inner enclosures, all of which are protected by interior walls, is the royal palace, where dwells The Lord of Earth and Air, with its lofty campanile visible from afar, and its hall of audience of carved and gilded teak in the shape of a colonnade 260 feet in length. At the extremity of the hall, and in the exact center of the city, stands the royal throne, on a dais richly gilded and flanked by silk umbrellas in white and gold as symbols of royalty. Here are served banquets at which the entire service is of gold and silver. There are also minor audience chambers, one named the Golden Palace, entirely covered with gold, and another, the Crystal Palace whose decorations are in the shape of mirrors or trimmings in porcelain and isinglass. On the right of the principal edifice are the gardens set apart for the king: on the left is the abode of the White

Elephant, a sacred appendage of royalty: and nearby are sheds containing war and working elephants. In a neighboring creek are kept the war canoes, handsomely gilded and with high curling prows and stern, some requiring 40 and some as many as 60 rowers. “The king's barge," says one who has seen it "is a splendid vessel built on two of the largest canoes and covered with the richest carvings and gildings. In its center is a lofty tower with square stories in black and gold: the prows of the two canoes of which this water palace is constructed consist of immense silver dragons, behind which are colossal figures of a Burmese warrior deity. The queen has also her separate barge decked and divided into apartments.

British Burma, acquired with recent additions after two protracted wars conducted by the Indian government, is ruled by a chief commissioner assisted by various officials, not least among whom is the agent appointed for the court of Mandalay for the furtherance of British commerce. As far back as 1872, exports and imports about equally divided, were little short of $55,000,000, and are now more than double that amount. Of the former, rice is the leading article and next are timber, raw cotton hides and horns, jade and precious stones, ivory petroleum and tobacco. Cotton and woolen fabrics, cutlery sugar and liquors form the bulk of the imports. Manufactures are increasing, though still somewhat rude in character, and of mineral products there are nearly all that are found in independent Burma, marble of excellent quality being common both to the province and the empire.

Agriculture is somewhat backward, not ten percent of the cultivable area being as yet under actual cultivation.

Adjacent on the cast to British Burmah is Siam, a kingdom whose limits have varied at different periods and even now cannot be distinctly traced, except on its western frontier, much of the territory that passes under that name being occupied by independent tribes. The surface is diversified with rich alluvial plains, spacious and fertile valleys flanked by lofty mountain ranges; on the west of the gulf an arid region, and south of this a luxuriant forest growth. The most productive portion is the delta of the Menam river, which is to Siam what the delta of the Nile is to Egypt; both having an area of many thousands of square miles subject to annual overflow, and both with an almost unlimited capacity for the production of cereals. A few miles from the estuary of the Menam, and on both sides of the river, is built the city of Bangkok, with some 450,000 inhabitants, the capital since, in 1767, Ayuthia, now Krung Krao, was sacked and partially destroyed by the Burmese. The quaintness of its architecture, the streets intersected with canals, the buildings raised on piles, and the house-boats moored three deep to the river banks, which serve as dwellings for a large proportion of the people, give to the metropolis a striking appearance, which is further increased by the bastioned and turreted wall that surrounds the eastern portion. Temples and palaces are numerous, the spires of the former and sometimes the entire edifice gilded or covered with mosaic work of most fantastic pattern. The royal palace, surrounded with lofty walls a mile in circuit, consists of many buildings and is used for many purposes. In the center of the main court are the audience chamber and the throne; there are temples rich in monuments and relics, among them a jasper statue of Buddha; and there is a theatre, an arsenal, and quarters for an army of troops, with stalls for war and sacred elephants. In contrast with this semi-barbaric splendor are the abodes of those by whom it is supported, most of them built entirely of wood and not a few of bamboos.

Krung Krao, a few leagues north of Bangkok, founded in the middle of the fourteenth century, and in the sixteenth nearly ten miles in circumference, is still an emporium of trade. Here are the most

imposing monuments of Siam, or rather their ruins; for little now remains except crumbling blocks of sculptured masonry, almost buried beneath the luxuriant growth of a tropical vegetation. The best preserved among them is the so-called Golden Mount, built in the form of a pyramid 40 feet in height and capped by dome and spire. At Koras, Bassac, and elsewhere in the district north of the great lake of Siam, are the remains of walled cities of vast extent, of stone bridges of remarkable design and workmanship, and of artificial lakes encompassed by walls of stone, with temples and palaces of wondrous dimensions and most elaborate design.

But these are of Cambodian origin, the capital of this, one of the most ancient kingdoms of south-eastern Asia, now lying buried the forest not far from the lake, and near it the temple of Nakhon Wat, or city monastery, one of the architectural marvels of the world.

Except for the friendly overtures of the Portuguese after their conquest of Malacca, European intercourse with Siam began late in the sixteenth century, when by the advice of his ministers the king sent an embassy to Louis XIV, resulting in Jesuit intrigues which cost the minister his life. About the same time commercial relations were opened with Japan, and later with Holland and England, James I exchanging letters with the Siamese monarch, by whom were accorded privileges to vessels arriving from London, then a metropolis no larger than his own. Thus trade was gradually developed, but with many interruptions from war and other causes that need not here be mentioned. For 1890 the exports of Bangkok, where centers the foreign trade of this kingdom, amounted to $16,000,000 rice exceeding in value all the rest. Imports for that year were stated at somewhat over $11,000,000, and consisted chiefly of cotton and silk stuffs, treasury jewelry and machinery. Inland trade is mainly with China, and conducted largely by caravans, though several railroads are in process of construction, and one at least from Bangkok to Paknam is completed. There are no manufactures worthy of the name, and agriculture is largely conducted by the enforced labor of serfs, compelled by local governors to a stated term of servitude. Of the rich alluvial lands in the delta of the Menam not five percent are under cultivation, and yet from this delta could be raised sufficient crops to supply the world with rice, besides large quantities of other products, some of which are indigenous to that region.

As to Cambodia, though in common with other portions of Indo-China a veil of obscurity hangs over this kingdom, the traditions of its ancient grandeur are fully sustained by the stupendous architectural remains which recent explorations have brought to light. In Chinese legends it is mentioned under the name of Fuman many centuries before the days of Christ, and in the second century of our era its ports were visited by trading vessels from western Asia, then under Roman domination. By an envoy dispatched from Peking soon after the time of Kublai Khan, its court and capital are depictured in glowing terms, and at this date—that is at the close of the thirteenth century—there were several wealthy and fortified cities. But later came invasions from several quarters, especially from Siam, and gradually the country fell into decay, until in 1863 it became a dependency of France, nothing worthy of description now remaining of its former greatness.

Under the name of Cochin China may be included, apart from Cambodia, the French possessions in the Indo-Chinese peninsula, all of them under the control of a superior council, and forming a customs union with receipts of some 30,000,000 francs a year. Of these Cochin China has an area of 23,000 square miles, with a population of about 2,250,000, of whom less than 4,000 are French. The entire surface, some of which is below the level of the sea, consists of alluvial deposits, rice being the staple product, with exports of 400, 000 to 500,000 tons a year. In Annam and Tonquin, which

virtually form one country, with an area of more than 100,000 square miles, 15,000,000 people are kept under control by a few thousand French and native troops, though the area actually under French occupation is limited extent. Commerce is almost entirely in the hands of the French; at several points coal mines are worked by French companies, and there are valuable deposits of gold, silver, copper, and iron as yet almost untouched. Among the chief products are, in addition to rice, sugar, cotton, silk, tobacco, spices, and fruits, exports of these and other commodities amounting perhaps to 30,000,000 francs a year. In the forests are several varieties of timber for building purposes, and here the sportsman may indulge his tastes at will; for in these forests are the royal tiger, panther, elephant, rhinoceros, wild boar, wild ox, and stag, with monkeys in countless swarms and of many species. There are game and other birds of brilliant plumage; the rivers swarm with fish, and of domestic animals there is a large supply.

Of Tonquin, or Tong King, there are Chinese annals dating back to the twenty-second century of the pre- Christian era, and in the twelfth century mention is made of ambassadors arriving from that country in “south-pointing chariots”, which some have interpreted as compasses mounted on vehicles. About the year 115 BC it became a Chinese dependency, and then followed cycle after cycle of wars and rebellions, the people never remaining long at peace until after the French intervention and conquest. Hanoi, the capital, with its palace and royal pagoda, its treasury, courts of justice, and public offices, owes its importance rather to its facilities of communication with the rich provinces of southern China than to its local commerce. Haiphong, built on a navigable canal a few miles from the sea, is the port and chief commercial center of Tonquin, and through it passed a large proportion of the $34,000,000 of imports and $19,600,000 exports included in the foreign commerce of 1891, nearly 800 vessels entering that port during the preceding year.

Malacca, or the Malay peninsula, though known to Europeans at least as early as the sixteenth century, is still, apart from its coast regions, comparatively unexplored. Its surface is extremely mountainous, with numerous ranges and ridges from 9,000 feet in height, trackless and with many of their passes covered with a dense growth of jungle. Only in limited areas on the east and west are there plateaus, valleys, or lowland plains; the rivers are short and few are navigable; the climate oppressive, moist, and unhealthy eve in the upland regions, with an average rainfall of 115 inches, clothing the land with a luxuriant tropic vegetation. Of cultivated plants, rice, cotton, tobacco, yams, and sugarcane are the most common; but though rice is first among them, the country does not produce sufficient for its own consumption. The flora and fauna are extremely rich, and here was first discovered the gutta-percha tree, which with the camphor, ebony, and others form a considerable source of wealth. It is in minerals, however, that the resources of this region mainly consist, the abundance of gold causing it to be named by the Romans the Aurea Chersonesus. Yet, though found both in alluvial and quartz deposits, the yield has seldom amounted to as much as 30,000 ounces a year. Of tin there is an inexhaustible supply, the veins extending at intervals throughout the entire length of the western slope of the dividing range. Iron is also plentiful, especially in the south, and coal has been found at points convenient of access.

The Malays are probably of Mongol stock, though intermingled with other elements, and especially with the Siamese, to whom belongs the northern portion of the peninsula, and with whom they are largely assimilated. The remainder of the territory is virtually under British control, though many of the states are nominally independent, the town of Malacca now forming a portion of the so-called Straits Settlements, which include also the cities of Penang and Singapore. Malacca was captured by

Albuquerque, and here, until 1807, stood the fort erected by this Portuguese conqueror, little but its arched gateway and the ruins of its massive wall now remaining of Malaccan antiquities, except for the remnants of a Dutch redoubt hidden beneath the tangled vegetation. The old Dutch stadhouse, however, is still preserved, and in other buildings may be noticed the tile-covered roofs and other characteristic s of the quaint Dutch architecture of the sixteenth century. Though long outstripped by rival ports, Malacca has a considerable trade, and in the European quarter, with its spacious and handsome residences surrounded with, orchards and flower gardens, are hundreds of wealthy residents.

In 1819 a British trading factory was erected on the southern coast of Singapore, and a few years later the entire island was purchased from the sultan of Johore for $60,000 in Spanish coin and a life annuity of less than that amount, a reasonable price withal for more than 130,000 acres of excellent land, with gold and tin in abundance, and with exports now exceeding $120,000,000 a year.

But when first this region came under British Occupation, it was covered with forest and jungle; and these cleared away, many branches of industry were tried before it was known for what the island was best adapted. The planting of nutmeg trees was first attempted, and for a score of years was fairly profitable; but presently the trees were blighted, and thus the colony was deprived of its principal source of wealth. Then came cotton and cinnamon, neither of which proved successful. Guttapercha fared better for a time, but under a system so wasteful that the trees were soon exterminated, while pepper and other productions were tried with different results. Coffee, sugar, cocoa-nuts, and aloes are now among the leading products, while fruits of many descriptions thrive on this fertile soil.

On the site of the present city of Singapore was founded by colonists from Sumatra, early in the Christian era, a settlement named Sinhapura, or the Lion city. Gradually it became of commercial importance, and so remained at least until the fourteenth century, but later fell into decay, a few inscriptions on the rocks being all that marked its former existence when its advantages of location were recognized as an emporium for British trade in the east. As now it stands the metropolis of the Straits Settlements and far in advance of its former rival, the port of Malacca, much of its importance is due to public and other works completed largely within recent years. Among them are several docks from 400 to 500 feet in length with a large admiralty dock and the docks and depots of the Messageries Maritimes and the Peninsular and Oriental Steam Navigation company.

Penang, or Pulo Penang, that is to say the island of the Areca nut, but officially named after the prince of Wales, was purchased in 1785 by the East India company, which gave in return to the rajah who owned it a pension of a few thousand dollars a year. Here, by a captain in the company's service, was established in the following year, on the site of the present city of Georgetown, what he terms "a compact little township with fort and public buildings." Apart from this township the island was almost uninhabited, though but a very few miles from the western coast of the Malay Peninsula, and with a fertile soil and the richest of forest growth. Sugar coffee and pepper, cocoa and areca-nuts, cloves and nutmegs are now its principal products; though but a small portion of the surface is under cultivation or has even yet been cleared. Meanwhile the "compact little township" has developed into a thriving city, with a foreign commerce exceeding $100,000,000 a year. Of Province Wellesley, which with the so-called Dindings is included in the Straits Settlements, and of Perak and adjoining states under British protection, it is unnecessary here to make other than passing mention. Of the

first, however, it may be said that, acquired originally for a trifling sum, mainly as a basis of operations against pirate hordes, it now contains a large number of tea and sugar plantations.

Sumatra, one of the largest of the group of islands between the Asiatic and Australian continents, with an area thirteen times as large as the country of which it is a dependency, probably owes its early civilization to Hindustan; for here as elsewhere in the Malay archipelago are many traces of Hindu influence. The remains of Buddhist temples arc numerous; in the various languages spoken by native tribes Sanskrit words are of frequent Occurrence, and inscriptions point to the existence of a powerful Hindu monarchy, founded toward the middle of the seventh century, when, as we have seen, the Buddhist sovereign, Siladitya, ruled over a score of tributary princes. A few centuries later there are traces of Muslim ascendency, one of the most powerful dynasties boasting its descent from an Islam missionary. Presently comes European intervention, and for a few years beginning with 1811 the most valuable portions of Sumatra are occupied by the British, later to be ceded to the Dutch, who now control the entire cast, though in the interior are many independent tribes.

The physical configuration of the island is bold and striking, lofty mountain ranges, in which are many volcanoes, active intermittent and extinct, extending throughout its entire length of nearly 1,000 miles, and bounding on the west a vast alluvial region.

The flora is extremely rich, especially as to the forest growth, causing Sumatra to rank among the foremost of the richly wooded regions of the archipelago. Of cultivated plants there are coffee, rice, sugar, and tobacco, the cocoa-nut and sago palm, with fruits and vegetables of many descriptions, while in the south the production of pepper has been for centuries the staple industry. Here, as in Java, coffee is a leading article of export, and though less in favor than the product of the sister isle. Sumatran coffee is not inferior in quality.

But minerals form the principal source of wealth in Sumatra, though latent wealth as yet, except for a little gold-mining and gold-washing in Padang and Menankabau. Copper is also worked to a limited extent, and there are oil wells in various districts. Coal and iron arc in fair supply, and in the volcanic regions are sulfur, naptha, saltpeter, and alum. But the people incline not to mining, nor in truth to any other form of industry; for most of them are of Malayan stock, and the Malays are incurably indolent. All enterprises worthy of the name are in the hands of the Europeans, of whom there are less than 5,000 out of a total population estimated at 3,500,000. Apart from a mosque erected in 1740, one of the finest in the Dutch East Indies, there are no architectural monuments nor in the cities and settlements is there anything that here needs special mention.

Passing to the adjacent island of Java, by far the richest and most populous in the Indian archipelago, we find a region filled with objects of interest, first among which are the great temple ruins that mark the path of Hindu conquest. Most remarkable of all are those of Bara Budur, on a hill near the bank of the Praga river, surrounded with the terraces and ramparts rising in successive tiers, of which the main body of the structure consists. On the outside wall of the second row are more than 100 niches each with an image of Buddha enthroned, and between the cavities seated figures of men and women. On the inner side are hundreds of bas-reliefs, representing scenes in the legend of the great apostle, as of his descent from heaven, his transformation, and his labors as a teacher of men. Elsewhere are Vishnu Siva, and other divinities; but above all, Gautama Buddha is preeminent. A few miles distant are the remains of another temple of most elaborate design, unearthed some threescore years ago from the ashes of a volcanic eruption beneath, which for centuries it lay buried. At Brambanam,

twenty miles to the southeast, is the site of the ancient Hindu capital, marked by the ruins of many temples, of which little as yet is known. Chief among them is the Chandi Siwa, or thousand temples, its central portion richly carved and decorated as are the 238 smaller structures that surround it, in each a small square-cell that once contained the cross-legged figure of a saint. In the residency of Bagelen, on a plateau designated as the sacred mountain in the most ancient of Javanese inscriptions, is a group of temples approached by a stairway with 4,800 steps, and by the so-called roads of Buddha, ascending from plains more than 6,000 feet below.

Elsewhere are the temple caves where Siva worshipped, and a structure of white limestone belonging to period of Hondu-Javanese art. Finally there are tree and serpent temples, most of them in the shape of pyramids, which, if they could be restored, might throw much light on these ancient forms of Hindu worship.

Though entangled with many complications, the political annals of Java may be classed under three periods almost corresponding with those of Sumatra both as to incidents and dates. Following the rule of native; princes comes Hindu domination, giving place in the 15th century to Mohammadan ascendency, and this in turn to European interference, culminating in the war which, after a vain struggle for independence, placed the island at the disposal of the Dutch. One of the most favored tropical regions in the world, it is one of the most productive, with a wide extent of alluvial coast lands and of valleys opening into broad champagnes, with a richer store of products than in any territory of its size, and now with a denser population than the most populous of European nations. Of rice the crops are enormous, yielding a large surplus for export besides serving as the principal diet for 25,000,000 Javanese, among whom to be without rice is to be without food. Other cereals are raised on a smaller scale, and of fruits the variety is endless. To Dutch owners and to the Dutch government, the coffee and sugar plantations, worked by enforced labor with average wages of $2.40 a month, are an unfailing source of wealth; of tea the production is from 8,000,000 to 10,000,000 pounds a year, and of tobacco thrice as much. With minerals, Java is poorly supplied, except for tin, more than 400 mines, of which the most productive are on the island of Banca, yielding some 20,000 tons a year of that metal. Yet the people are skilful as metallurgists, especially in the working of gold and silver and in the fashioning and decoration of weapons.

Batavia, the capital of the Dutch East Indies, was founded in 1619, and in the last year of that century was partially destroyed by an earthquake, where after, the streams being choked with volcanic mud, the Climate became so unhealthy that, as is related, 1,000,000 deaths occurred within a score of years. As now it stands with its old and new town, the former at one time surrounded with ramparts and containing many costly buildings long since fallen into decay, it is a city of pleasing appearance, with streets laid out in regular lines, most of them fringed with shade tree s and some divided by canals.

Miscellany

Traveling in what was then a province of Mongolia, the Polo brothers, Maffeo and Nicolo, visited the court of Barkha Khan at Sarai, where, as he relates, was a great edifice surmounted by a golden crescent weighing two kantars of Egypt, and surrounded by a wall with towers. Sarai was at one time in the see of a Latin and also of a Russian metropolitan; it was destroyed by Timur in 1396 and rebuilt on another site; but was again destroyed a century later by the Russians.

Proceeding in their journey the brothers Polo came in due time to the court of the great khan, who gave them a tablet of gold with instructions thereon to all his subjects that everything needful should be provided for the travelers in the countries through which they intended to pass. On their second great journey, begun in 1260, they were accompanied by Marco, then only 17 or 18 years of age. Arriving at the imperial palace of the great khan, not far from the present city of Peking, they were kindly received. Marco became a favorite with Kublai, and after studying the languages used in his dominion, and especially the court language, was employed as an agent in his service, travelling extensively and taking notes on all that seemed to him most curious and interesting. These he afterward gave to the world. All the brothers became wealthy, remaining many years with the khan, who refused to part with them until 1286, and then consented with reluctance. It was not until 1295 that they finally reached their native land; for the journey was attended with man's detentions and disasters.

In Marco Polo's city of Mien, "there is a thing so rich and rare that I must tell you about it," he says. "You see there was in former days a rich and puissant king in that city, and when he was about to die he commanded that by his tomb they should erect two towers, one at either end, one of gold and the other of silver, in such a fashion as I shall tell you. The towers are built of fine stone, and then one of them has been covered with gold a good finger in thickness, so that the tower looks as if it were all of gold; and the other is covered with silver in like manner so that it seems to be all of solid silver." In the province he calls Koloman, "there is a good deal of gold, and for petty traffic they use porcelain shells. There are merchants in this country who are very rich, and dispose of large quantities of goods."

Of Khotan, the former metropolis of east Turkestan, Marco reports that "everything is to be had there in plenty, cotton flax hemp wheat and wine." A traveler who visited that district in 1865, but apparently knows nothing of what is beyond it, pronounces the country superior to India and equal to Kashmir, the chief grains being corn wheat and barley, and for fruit, pears apples peaches and apricots. Jasper and chalcedony are spoken of by other travelers, and jade found in water-rolled boulders fished up by divers in the rivers of Khotan, but also obtained from mines in the valley of the Karakash River. Timkowski says that "some of the jade is white as snow, some dark green, like the most beautiful emerald, and some yellow, vermilion, and jet black." The jade of Khotan seems to have been first mentioned by Chinese authors during the Han dynasty, in the second century of the pre-Christian era. An image of Buddha carved in jade was sent as an offering from Khotan AD 541. The stone is largely used by lapidaries, and in Europe, so far as is known, has never been found in situ.

Most of the fine, long, silky hair of the Kashmir goat from which are made shawls worth $500 to $2,000 apiece comes really from Tibet and sells for as much as $3.00 a pound. At a place which he calls Caindu. Marco Polo reports "a lake where are found pearls that are white but not round, but the great khan will not allow them to be fished; for if people were to take as many as they could find there

the supply would be so vast that pearls would lose their value, and come to be worth nothing. There is also a mountain in this country wherein they find a kind of stone called turquoise in great abundance, and it is a very beautiful stone. The money matters of the people are conducted in this way: they have gold in rods which they weigh, and they reckon its value by its weight in saggi, but they have no coined money. They have salt which they boil and set in a mold, holding half a pound, eighty molds of which are worth one saggio of fine gold, which is a weight, so-called; so this salt serves them for small change." In another province called Carajan, they used for money "certain white porcelain shells that are found in the sea. In this country gold dust is found in great quantities; that is to say in the rivers and lakes, while in the mountains gold is also found in pieces of larger size. Gold is indeed so abundant that they give one saggio of gold for only six of the same weight in silver." At Zardandan, "the people all have their teeth gilt; or rather every man covers his teeth with a sort of golden case made to fit them, both the upper teeth and the under; this do the men but not the women."

The old Afghanistan city of Balx is described by early travelers as something magnificent.

Of all the islands of the Malay Archipelago Borneo is probably foremost in mineral wealth. The diamond mines of Borneo have been worked for centuries, and among the many large brilliants taken there from was one of 367 carats which passed into the possession of the sultan of Matan; it remained as an heirloom in the family of four successive monarchs and was about the last that remained of all the appendages of royalty. Gold mining was also among the industries of former ages when both gold and diamond fields were much more profitable than at the present date. For 1812 the yield of the former was estimated at more than $5,000,000, and on the mines at Mentrada and other points on the western coast 32,000 Chinamen were at work.

While voyaging among the islands of the Pacific in 1521, the members of Magellan's expedition relate that they found there native rulers with earrings of gold, and wearing tunics of cotton cloth embroidered with silk, silken turbans, and daggers with handles of gold. They were invited to a Bornean feast, at which capons, veal, and fish were the principal dishes, with rice eaten from golden spoons and arrack, distilled from rice, served in porcelain cups. Though gold was plentiful, the people used brass coins as currency. The king, it was said, possessed two pearls of priceless value, large as pullets eggs, and so round that when placed on polished tables they rolled continually.

In the island of Timor, near the coast of northern Australia, gold, copper, iron, and other minerals are known to exist in large deposits, as yet untouched, while in tile forest sandalwood is plentiful. The population, chiefly Papuan, is divided into a large number of petty states, nominally subject to Holland or Portugal, between whom the island is divided, each having its outport, which is also the seat of government.

Separated from Borneo by the strait of Macassar is the island of Celebes, its 70,000 square miles of area and 800,000 people practically under Dutch control, though as to internal affairs most of the territory is under the administration of native chieftains, some of whom pay to the Dutch authorities a certain tribute in gold. In the northern portion gold is found in many localities at a depth of a very few feet, and thence the deposits extend downward to at least 100 feet; but as the island contains only a handful of white inhabitants, they have been worked without system and with the rudest appliances. Vegetation is luxuriant, and many of the plants that furnish food for man are found in their natural state, while others can be readily cultivated. For the most part, however, industrial pursuits are not in favor among the aborigines, who incline rather to hunting, gambling, and cock-fighting, content to

dwell in huts of wood and bamboo, so frail that they are readily overturned by the force of the wind. In the districts where Dutch influence has made itself felt there is a better condition of affairs. In the residency of Minahassa, for instance, coffee, tobacco, rice, nutmegs, and cocoa are among its staple products, the last introduced by Spanish navigators at an early but unknown date. Of coffee the yield is rapidly increasing; for the plant thrives well at an elevation of 2,000 to 4,000 feet, producing a berry which commands a much higher price than that of Java growth.

Except Australia, of which at one time it probably formed a part, New Guinea is the largest island in the world, with a length of nearly 1,500 miles and an area of more than 200,000,000 acres. Gold mines are worked on several of the adjacent islands; on the mainland are valuable timber and other native products, while a large area of land adapted to sugar plantations is offered at $1.25 an acre.

The Moluccas, or Spice islands, the goal of Magellan's expedition, though its commander never lived to reach them, were known to the conquerors of Mexico as portions of a group "fabulously rich in pearls and precious stones, and undoubtedly in gold, since they lie to the south." So at least wrote Albornoz to the king of Spain in 1525 suggesting that a fleet, be sent in search of them; for their exact location was unknown, though they were believed to be not more than 700 leagues from the Mexican coast. In this and the two following years several fleets were dispatched to this fabled realm; but we hear of no definite results, except that on one of the vessels was shipped, instead of gold and pearls and precious stones, a quantity of cloves. Meanwhile Portuguese settlements had been established at several points, and for a time were fairly prosperous. Presently came Dutch traders followed by Dutch occupation, which still continues in the northern and southern groups, where are the residencies of Ternate and Amboyna. The Banda isles are the Spice islands proper, the largest of them being almost covered with a forest of nutmeg trees, the fruit of which, with a proportionate quantity of mace, is gathered at the rate of hundreds of tons a year. Elsewhere cotton, tobacco, cocoa-nuts, sago, and cloves are the principal products.

As the progenitors of the native races of America were believed by many to have been the ten lost tribes of Israel, so was the Ophir of Solomon long sought in these and other parts. Many besides Columbus at Veragua supposed that they had found the spot, the viceroy of Peru, for instance, sending westward, in 1567, a vessel for purposes of discovery, under command of Mendana de Neyra, who gave its name to the Solomon group of islands, surmising for reasons best known to himself that the gold for the temple was taken thence. By a second expedition, intended to establish colonies, were discovered the Marquesas and Santa Cruz islands; but on one of the latter Mendana died, and not until two centuries later was the Solomon group relocated by various navigators. Presently came traders and missionaries, none of whom met with success and not a few were murdered; but though crafty, thievish, and bloodthirsty, the natives are susceptible to kindly treatment and some are even employed as servants. They cultivate the soil with a certain degree of skill, though bread-fruit, cocoa-nuts, yams, and fish can be had without labor, while the plains are clad with luxuriant vegetation and the mountains with a magnificent forest growth. Their weapons are bows and arrows, spears and clubs, all fashioned with nicety of finish, and though men and women are naked or with the scantiest of covering, they are not unacquainted with textile and other manufactures in rude and primitive form. Of all the Pacific groups the Solomon isles are the least known; yet sufficient is known to indicate that they are not lacking in resources and from the northern cluster, now in the possession of German, there are already considerable exports, chiefly of sandal-wood, ebony, and tortoise-shell.

Of minor groups, as the Gilbert and Marshall islands, the latter also a German possession, it is unnecessary to make other than passing mention. The Caroline islands, which belong to Spain and were named after Charles II, though some have a well-wooded surface and fertile soil, are at present of little value. In the Ladrones, which Magellan's sailors christened for reasons that explain themselves, the Islas de los Ladrones, or islands of the Thieves, are Spanish colonies subject to the government of the Philippines. While capable of a large variety of products, agriculture and all other industrial pursuits are at their lowest ebb; for such is the laziness of the natives, of whom only a few thousand survive, that cattle and swine are allowed to run wild in the woods, to be hunted for food as required.

The Philippine islands, some 1,400 in number with an area of 114,000 square miles and a population of about 12,000,000 are, except Cuba, the most valuable of the colonial possessions of Spain. In several of the islands minerals are fairly abundant. Gold is widely distributed, but seldom found in paving quantities. Of cinnabar and lead the deposits, though numerous, are also of slight economic value. Copper mines have been worked at various points In a company founded in 1862, while long before that date copper was extracted and fashioned into utensils by native miners and artisans. Iron is plentiful; but its production is restricted to a single province, where are a few small foundries. Of coal lands the area is considerable, and among them are beds from 15 to 20 feet in thickness the output of which is used only for local consumption.

The fauna of the island is defective, the deer and wild boar being the only indigenous animals that serve as food. Most of the isles are covered with dense vegetation, among which are known to exist at least 4,500 species of plants, and in the forest are many descriptions of merchantable timber. Nearly all the fruits and food plants common to the Malay Peninsula are found in the Philippine groups, rice being the staple food and tobacco hemp sugar coffee and cocoa the chief products of commercial importance. For an entire century, ending with 1882, tobacco was a government monopoly; could be sold only to the government and at its own price, averaging for the later years of the term some 13 cents a pound for leaf of first-class quality. Production was on an enormous scale, most of the crop being made into cigars, of which about 300,000,000 were manufactured annually by 20,000 operatives. Hemp, produced mainly by hand labor with the aid of simple native implements, is chiefly raised in the south-eastern portion of Luzon, the largest of the islands. Of sugar exports in favorable years have exceeded 200,000 tons, the most valuable plantations, some of them 1,000 acres in extent, belonging to catholic monasteries and leased in sections to Chinese half-breeds, whose minute and careful system of cultivation is rewarded with excellent results. Manufactures are few and for the most part of textile fabrics, silks and cottons of finest pattern and finish being fashioned on Manila looms.

For many years after the Spanish occupation the commerce of Manila was restricted to the cargo of a single galleon, voyaging yearly to and from Acapulco with commodities specified by the government and sold at extravagant prices for the benefit of Seville merchants. It was not until 1764 that goods from Spain were shipped by way of the Cape.

Chapter the Sixth: Greece

Look once more, ere we leave this specular mount,
Westward, much nearer by south-west; behold
Where on the Aegean shore a city stands,
Built nobly, pure the air and light the soil;
Athens, the eye of Greece, mother of arts
And Eloquence, native to famous wits
Or hospitable, in her sweet recess,
City or suburban, studious walks and shades.

See there the olive-grove of Academe,
Plato's retirement, where the Attic bird
Trills her thick-warbled notes the summer long;
There, flowery hill, Hymettus, with the sound
Of bees' industrious murmur, oft invites
To studious musing; there Ilissos rolls
His whispering stream. Within the walls then view
The schools of ancient sages; his who bred
Great Alexander to subdue the world.

As with Egypt begins the history of eastern civilization, so in Greece we find the origin of the political, social, and intellectual life of the great nations of the west. By the Greeks was first held in confine the despotism of Asiatic monarchies, and by them was first established the principle that no one man should rule with absolute sway. From the beginning their annals were those of a people subject to the dictates of reason, with a strong sense of individual duties and of individual rights, searching into the causes of things, interpreting nature in beautiful forms and human thought in the clearest of language. Nor is the value of Grecian annals restricted to the period when authentic records separate fiction from fact, and present to us the balanced and well ordered community from which European civilization was evolved. Long before the first Olympiad, when written characters began to be used for the perpetuation of historic events, history was mingled with legend, forming a transition state between the two. The religion, moreover, and in part the institutions of the Greeks were molded on these legends, which, lining with brilliant hues the clouds that veil Hellenic Story, long survived their existence as an independent nation.

But with the countless traditions of the Greeks, and their gods almost as numerous, we are not here concerned, though in many, whether relating to gods or men, are the strongest elements of the picturesque. In their theogony there was little pertaining to the creation of man, and for the most part they were content to trace their origin to some primeval ancestor sprung from goddess or nymph, from river or mountain. In other vein is Hesiod's description, as contained in his ethical poem of Works and Days, when; is perhaps the most beautiful of all stories as to the origin and evolution of the human family. Down to his own time, as he relates, there were five distinct races of men, and that he lived in the fifth was to him a life-long regret; for this was the iron age, one given to oppression, injustice, dishonesty, and all manner of evil, and therefore doomed to suffering and speedy extinction, though what was to come after it he does not tell us.

First and best of all was the golden race created In Olympian gods, when the spontaneous fruits of the earth were sufficient for the needs of all, when men knew neither sorrow sin nor suffering, neither sickness nor old age, living a life of tranquility and repose, as did the gods themselves, and passing away in a gentle sleep. Far inferior was the silver race which for their wickedness and impiety Jove buried in the earth. Of matchless strength and spirit was the brazen race, with implements arms and dwellings of brass; for as yet then; was no iron; but through perpetual warfare it was presently destroyed, giving place to heroes and demigods, such as those who fought at Troy, of whom some were slain in battle and some were removed to the isles of the blessed.

Even in the golden age there were daemons as well as gods; but these were in the form of terrestrial guardians appointed by Zeus to watch unseen the deeds of man, to take account of them and to distribute wealth among the deserving. Neither are the Hesiodic nor other demons authors or abettors of evil, those of Homer differing but little from the gods, both visiting in disguise the haunts of men, observing their actions, and bestowing rewards and punishments. Especially were demons useful as the police or intermediate agents of the gods for the repression of human wickedness, thus performing a good work, and one of which the world is sorely in need at the present day. It was not until the time of Xenocrates that the modern or purely malignant daemon was invented; and though in a measure countenanced by Plato, such were not readily adopted into the religious system of the Greeks. Yet these also served a good purpose, shifting from the gods the odium of bringing tribulation on the world, and explaining many ills which it was not convenient to attribute to celestial agency. Hence, with some changes, the Hellenic daemon was readily adopted by early Christian writers: for

they also must have a being on whose shoulders they could lay the woes and vices of the world, a being whose nature was entirely evil as contrasted the goodness of a god.

It was small in area, this land of Hellas—the word Greece being first used by the Romans and never by the Creeks themselves—considerably smaller than Scotland, and about one-seventh the size of California which in climate and products it somewhat resembles. Yet within these narrow limits were many independent states, some with but the merest strip of territory, and few of greater extent than a Texas farm of the larger class. It was a mountainous country its numerous ranges separated by narrow valleys and plains, in which dwelt isolated communities, differing as much in manners customs and institutions as though, instead of being separated only by a mountain chain, they were thousands of miles apart. In no part of Hellas do we find ourselves more than a few miles distant from lofty hills, or more than forty miles from the sea. The extent of shore line, greater than that of the entire Spanish peninsula, was one of its natural advantages; and as Strabo remarks, the sea was the guiding feature in its geography. On the eastern shore was the Aegean, thickly studded with islands; on the west it was separated from Italy by the narrow channel of the Adriatic, and toward the south the broad Mediterranean divided it from the most fertile regions of Africa. Only on the northern side was it accessible by land, where were mountain barriers impassable except through defiles easily defended against superior numbers by a handful of resolute men.

At the time when the Mediterranean was the world's highway of commerce, no country was more favorably situated than Greece. Its shores were indented with numerous bays and gulfs, many of them running far inland, and with rare exceptions giving to all the political divisions a separate seaboard. There were scores of navigable harbors, and from every state was easy and ready access to the coast. Thus the Greeks were both mariners and mountaineers, dwelling among their native hills bathed in the rich coloring of a transparent atmosphere, amid an environment which could not fail to develop the love of freedom and foster the spirit of adventure. As with the Swiss, they owed much of their greatness to the physical features of the country in which they lived, much of their vigor of mind and body, their quickness of perception, and their wonderful versatility. Nor were natural resources wanting. Their small but fertile valleys produced grains and fruits; there was no lack of oil and wine; on the hills was excellent pasture for cattle, on mountain slopes now bare were forests of valuable timber; of useful metals there was a plentiful supply, and from the mines of Thrace and of Laurium came the treasures which enabled Athens to build her fleets during the days of her naval supremacy.

While doubtless there was an anti-Hellenic period, it is with the Hellenic branch of the great Pelasgian family that the real history of Greece begins. According to their own traditions they were the descendants of a common ancestor named Hellen, son of Deucalion, the Greek hero of the deluge, and father also of Dorus and Aeolus, whence the Dorians and Aeolians; while unto Xuthus, another of his sons, were born Ion and Achaeus, who gave their names to the Ionians and Achaeans. From their home in southern Thessaly they spread, and with them their name, throughout the peninsula, forming many settlements and living together, as Herodotus says, in fellowship of blood and language, of religion customs and institutions.

They were an exclusive people, glorying in their origin and name, which to them was the Symbol of civilization and fraternity. All non-Hellenic communities they called barbarians, including in this term the cultured Egyptians, the wealthy Carthaginians, and even the patricians of ancient Rome; using it, however, not in the modern sense but as expressing repugnance and contempt.

The Hellenes came originally from the table-lands of central Asia, the home of many nations, all in a measure civilized, and in languages belonging to the Indo-European family, of which there were many varieties. At first they were a pastoral rather than an agricultural people, but not unacquainted with the useful arts, knowing how to manufacture wool into clothing, and how to work in copper, silver, and gold, while for weapons they had the bow, the sword, and the spear. During the heroic age they were divided Into three classes; nobles or chiefs, freemen, and slaves, wealth and power being concentrated in the hands of the first, though among the freemen there were certain callings, as those of the seer and bard, the carpenter and smith, which were held in high esteem. Yet the nobles were far above all others, holding large estates which they worked with slaves whom they treated kindly. Especially was the distinction marked in time of war, when the chieftains were almost the only combatants and the common soldiery as nothing. In his two-horse chariot, with a chosen friend as driver, armed with long spears, with swords and daggers, and with breast-plate and greaves, helmet and shield as protective armor, a single hero might sometimes scatter an army.

Commerce was despised; but piracy was considered one of the most honorable professions whereby a noble could enrich himself. Such traffic as existed was in the form of barter; for as yet there was no coined money, Phoenician merchants exchanging for Hellenic products the manufactures of the East, among them the choicest fabrics of Sidonian looms. Manners were simple and free from affectation, nobles and even kings not deeming it beneath their dignity to practice the manual arts, while their wives and daughters carried water from the well and washed garments in the river side by side with their slaves. We have read how Ulysses built his own bed-chamber, and prided himself on his dexterity in handling the plow. Achilles, the fiercest of warriors, was probably an excellent cook; for the chieftains prepared their own meals, and were proud of their skill in cookery. Their food was plain and substantial, consisting chiefly of goat's flesh, beef, and mutton—though pork was later a favorite dish, especially among the Athenians—bread served from baskets and cheese or bouturon, whence probably our word butter. For drink there was wine diluted with water, partaken of sparingly and after libations to the gods.

Yet, with all their simplicity, the Greeks of the heroic age were far advanced in the arts of civilization. They lived in fortified towns within whose massive walls were stately temples and palaces. As Homer relates, though doubtless his descriptions are somewhat over colored, the chieftains lived in splendid mansions glittering with gold and silver, their persons arrayed in garments fashioned of the richest of oriental textures. In chariots drawn by the high-bred steeds of Argos they traveled far and fast, and the sea they navigated swiftly in galleys manned by fifty oarsmen. Great public works they also undertook, as the tunnel which drained the waters of Lake Copais, four miles in length and with many shafts, of which one is 150 feet in depth. But greatest of all the surviving monuments of the heroic age are the walls of Mycenae, wealthy Mecenae as Homer calls it, though its wealth did not always endure; for after some centuries of prosperity a protracted war with the Argives resulted in the plundering and dismantling of the city. Among the ruins are the treasure-houses of Atreus and his descendants subterraneous buildings constructed in the side of a hill and of which one is still preserved.

They were richly sculptured, as also was the Lion gate, where was the principal entrance to the town, above it two lions rampant carved in relief.

It is with a feeling akin to awe that we look on the remains of this ancient city, which lay in ruins in the time when Thucydides wrote. In its underground vaults was stored the wealth of the earlier kings

of Mycenae, their floors covered with tripods and vases of gold and bronze, the gifts of Greek and Persian kings. Suspended on the walls were the weapons and equipments of the heroic age swords and lances, breastplates and bucklers, greaves and helmets, bridles and trappings, all of them richly decorated. Here were the ivory frontlets which Maeonian women dyed, and in brass-bound chests were cloaks and tunics heavy with embroideries in gold and purple. Here also were the finest textures woven by princesses of the house of Atreus, while of the presents not a few were believed to have been presented by Minerva, or to have come direct from the forge of Vulcan.

The community of sentiment of which Herodotus speaks was nowhere more strongly marked than at what are termed the games of the Greeks, particularly the Olympic Games, which like the rest were rather in nature of religious festivals, sanctioned by the approval and in earlier times honored by the presence of the gods. Of such gatherings it would be difficult to exaggerate the importance; for in later times they were attended by multitudes from every portion of Hellas. Olympia, on the northern bank of the Alpheus, in the midst of a valley flanked by the snow-clad ranges of Cyllene and Erymanthos, was, as the orator Lysias declared, the fairest spot in Greece. It was one of the most ancient of Peloponnesian towns, its political and religious associations dating back to a pre-historic age, when in this valley the ancestors of the Hellenes offered sacrifice to the sky as their heaven-father. It was probably in honor of Pelops, whence the word Peloponnese, and by whom, as tradition relates, was founded in the southern peninsula the first of its Asiatic colonies, that the Olympic Games were instituted. In a somewhat later era Zeus and his sister-wife Hera were among the deities honored at the Olympian festivals, women selected in the town of Elis and of the neighboring state of Pisatis weaving for the latter her richly embroidered peplus. Thus was established an amphictyonic or federal league, corresponding to the more powerful organization in whose charge were the treasures of the Delphian temple, and in whose care were the interests of northern Greece. The league was joined by Sparta, and from it the Pisatians were presently excluded, the control of the games and their attendant festivities remaining in the hands of the Eleans. They were quadrennial gatherings, and with the year 776 commences the first of the Olympiads adopted in the Hellenic system of chronology, each one including the four years interval between the celebrations. For nearly twelve centuries, or long after Greece became a Roman province the contests were continued, until in 394 AD they were suppressed by the emperor Theodosius.

At first of a local character and lasting only for a single day, the games were so diversified and enlarged as to become a pan-hellenic celebration.

During the month in which they were held, all hostilities were suspended and Elis was considered as sacred territory on whose soil no foe might tread. The earlier exercises were of Spartan type, consisting chiefly of foot-racing and other such trials of strength and endurance as were connected with a warlike training. To these were added in the 25th Olympiad the four-horse chariot race, and later horse-racing, these in the hippodrome and apart from the stadion, now considerably enlarged; for wrestling, boxing, leaping, and the throwing of quoits and javelins were among the list of sports. The attendance was large, especially at the quadrigal contests; for here was a challenge to wealthy competitors from all the Grecian states, deputies vying with each other in the magnificence of their offerings, the splendor of their retinue, and the richness of their attire. In these contests only the wealthy could afford to participate, and hence on one of them was bestowed the olive wreath which formed the only prize, but one valued above all earthly possessions, one for which Philip of Macedon and Nero of Rome were not ashamed to compete. To the noble and long descended there was no

worthier ambition than to be crowned as victor before assembled Hellas, and no greater honor could he confer on his family, his native city, and his native state. His statue was erected in the sacred precinct of the Olypian Zeus; returning homeward he was met in triumphal procession, and his praises were sung in the loftiest strains of poetry and song. Near the stadion, in the consecrated quarter known as the Altis, stood the temple of Olympian Zeus, a simple edifice of the Doric order, but rich in statuary and reliefs representing such ancient legends as the struggle between the Centaurs and Lapithae, the labors of Hercules, and the victory of Pelops in his chariot race with Oenomaus. Here also, in golden robes of figured gold, crowned with an olive wreath and holding forth a figure of victory. Jove himself was seated on a throne of ebony and ivory, richly sculptured, and inlaid with precious stones. In truth the statue was worthy of its theme and of the classic, era of Grecian art; for it was from the hand of Phidias, and on this and his chryselephantine statue of Athena largely rests the fame of the great sculptor. In the fifth century of our era both statue and temple were destroyed, the former in the great fire of Constantinople, whither it had been transferred, and the latter by the Goths, or as some have it by the emperor Theodosius II, Christian and iconoclast. Other Olympian fanes were those of Hera and Metroon, the mother of the gods, the latter with rich and varied decorations. Nearby were twelve treasure-houses, wherein was mainly stored the wealth of Elis; for here as elsewhere in Greece the temples also served as banks, or rather as safe-deposits, in which were preserved the votive offerings to the gods, and where the wealthy left for safe-keeping their more valuable effects, both largely in the form of gold and silver plate.

In the third year of each Olympiad were celebrated on the Cirrhaean plain, near Delphi, the Pythian games in honor of Apollo, and at first merely a competition among the bards who sang hymns in his praise. To these were added later horse and chariot racing, with athletic and other exercises, song and music being never omitted from the program. Though in origin probably at least as ancient as the Olympian games, they were never of equal importance, as is shown by the rewards which Solon granted to Athenian victors—500 drachmas to him who gained an Olympic prize, and to a Pythian conqueror 100 drachmas. The Nemean games held in honor of Nemean Jove, and the Isthmian games which the Corinthians dedicated to Poseidon completed the four great festivals of the Greeks. The latter were biennial celebrations, and so arranged as to date that each year had its great social and religious gathering.

To the merchant was here afforded an opportunity for traffic, and especially at Olympia, where the sacred enclosure was surrounded with booths, while in a spacious hall poets, historians, and philosophers recited their works.

More ancient even than the fane of Olympian Jove was the temple of the Pythian Apollo at Delphi, the founding of which belongs to a prehistoric age; for even in the Iliad it is mentioned as the most sacred and wealthy of Hellenic sanctuaries. Hither came votive offerings from many eastern and European nations, and as these accumulated with the lapse of centuries, the riches of Delphi began to be as famous as the oracular sayings of its priestess. As to the first temple, destroyed by fire in 548, little has come down to us except that it was built of stone; but of its successor a few remains are still preserved. Externally it was of the Doric order, and within of the Ionic, its front of Parian marble and its pediments covered with the figures of gods, demi-gods, and heroes. In trophies and decorative sculpture it was extremely rich; on the architraves were the gilded shields which the Athenians gathered among the spoils of Marathon, and those which the Aetolians captured from the Gauls, while on the panels of the frieze were portrayed some of the choicest of mythological subjects. Inscribed on

the pronaos were the maxims of Grecian sages; in the cella the sacred fire was forever burning; beneath the mythic omphalos lay the center of the earth; in the adytum sat the priestess on her tripod, inhaling the subterranean vapors which gave her the gift of prophecy. To this oracle men from all the Grecian states, from Italy, Phrygia, and other foreign lands appealed for counsel when in distress. That the answers, delivered in hexameter verse, were obscure and ambiguous, often resulting in disappointment and disaster, did not impair the credit of the oracle which, long survived the downfall of Greece as an independent nation. As at Olympia and Delphi, Zeus was the deity to whom was dedicated the Epirot temple of Dodona; but Zeus, the national deity of the Greeks, lived in many forms, and here was worshipped as the Pelasgian Jove, he who wields the thunderbolt and controls the storm. Of all Hellenic sanctuaries this was the most ancient and venerable its fame inferior only to that of Delphi. The god was supposed to dwell in the stem of an oak, thus pointing to the tree-worship of prehistoric times. The auguries were taken from the rustling of its leaves, from the notes of doves settled in its branches, from the murmur of a stream which rose at its side, or from the sough of the wind amid the brazen tripods which encircled the temple; but while a dumb oracle it was none the less in repute, such men as Croesus and Lysander being numbered among its votaries. Other oracles and fanes were numerous in Greece; for seldom was any great enterprise, whether national or individual, undertaken without seeking thereupon the approval of the gods. As repositories of wealth they were liable to be despoiled; the Phocians indeed plundered Delphi during the time of Philip of Macedon, while Nero removed thence hundreds of brazen images, and to enrich his capital, Constantine carried away the sacred tripods and the statues of Apollo and the muses.

In the temple of Delphi was the assembly hall of the Amphictyonic council, one of the most powerful organizations of the earlier Greeks. While its origin has been traced to a mythic hero, the word amphictyones means simply those who dwell around or near a given neighborhood, and of such gatherings there were many in Hellas, though none with the power and dignity of that which met each spring in the fane of the Pythian Apollo, holding an autumnal meeting in the sanctuary of Demeter at Thermopylae. Here, in times as remote as the completion of the temple itself, deputies assembled from the twelve leading tribes to protect their common interests, chief among the obligations of their well-known oath being "not to destroy any Amphictyonic town, and not to cut off any Amphictyonic town from running water." No idle threat their vow to march against and destroy the city of anyone who should attempt to do so, and to punish with foot and hand and voice and by every means in their power those who should plunder the temple of Delphi, whose treasures were in their keeping. Witness the second of the sacred wars, in which nearly all Hellas was involved. Other oracles and fanes were numerous in Greece, and to despoil a temple brought reproach upon the nation. For using the treasures of Delphi the Phocians, after their defeat at Magnesia, were exterminated as a people. By order of the council their towns were to be destroyed; they must thenceforth dwell in villages containing not more than fifty houses: they were to be forever excluded from the Amphictyonic league, and must replace in yearly payments the Delphic treasures, amounting to 10,000 talents, or more than $12,000,000.

As to Lycurgus and Solon, the two great lawgivers of the Greeks, Plutarch declares that while as to the laws or his political career former nothing definite is known, nothing as to the date of his birth or death, his it is probable that he was one of those who in 776 assisted in restoring the Olympic games, and that his code was framed, if framed at all, about the close of tin preceding century.

Of royal lineage, and driven for a time from his native land, as was said, by his wife and sister-in-law, the former consort of King Polydectes, he had travelled far and to excellent purpose, studying the institutions of many countries. It is in the features thence adopted, in the customs, modes of life, and above all in the discipline of the Spartans, that we see the effect of his laws, and these I will briefly describe, though much of my description belongs to a somewhat later period.

In the picturesque valley of the Eurotas, and flanked on the west by Mount Taygetus, rising 8,000 feet above the city, its lower slopes covered with forests primeval, in which the stag and wild boar were hunted, lay the capital of Laconia, beautiful Lacedaemon as Homer terms it. In importance it never became as a city what Laconia was as a territory, consisting merely of a group of villages several miles in circuit, the houses plainly built and surrounded with spacious gardens, on the site of which still grow the olive and mulberry. Its defenses were the mountain walls and the strong arms of its warriors; for it was not until late in the fourth century, when Sparta was threatened by the Macedonian conquerors of Hellas, that fortifications were erected. There were few large public buildings, and none that approached to magnificence, except perhaps the temple of Athena, with plates of bronze on which were depicted a few mythological episodes. Everything was plain, substantial, and solid, as is shown in the huge stone blocks of the theater, the colonnades and porticos, the chapels and tombs of heroes of which fragments still remain. Hence among the ruins of all cities of antiquity, those of Sparta, though thoroughly explored, have proved the most disappointing

The two coexistent lines of Spartan kings were ever at variance, and as a rule served no good purpose, except that their dissensions secured the state from the despotism of a single monarch. In later times their powers were usurped by the ephors, though still possessing ample estates and held in reverence by the people as high-priests who offered sacrifice in their behalf. As representatives of the popular assembly, though itself of no a board of more importance than the agora of the heroic age, a board of five ephors elected annually, with functions resembling somewhat those of the Roman tribunes, became the dominant power in the land, ruling with absolute sway both in foreign and domestic affairs, holding courts of justice, and inflicting fines and imprisonment on all who incurred their displeasure, not excepting royalty itself.

There was a gerousia, or council of elders, the two sovereigns being included in the thirty members all of whom held office for life, though not eligible until sixty years of age. While an important factor in the government, it never attained to the political supremacy described in the glowing periods of Demosthenes, and certain it is that in common with the kings and ephors, its members were guilty of venality.

Of the three classes that formed the population of Laconia, the Spartans alone held office as fully qualified citizens. None of them could be termed wealthy as wealth is now computed; for it was beneath their dignity to engage in commerce, agriculture, or any form of handicraft. Yet they owned the greater portion of the lands, and cultivated by the Helots, who paid their rent in kind, these yielded sufficient for their needs. They were subject to the discipline established by Lycurgus, spending much of their time in military and athletic exercises, and contributing their quota to the public mess where all must take their frugal but sufficient meals. The famous black broth was the principal dish, and this was by no means so unpalatable as is commonly supposed, though of what it was made we know not. Bread cheese, fruits, and wine were also supplied, and sometimes there was a

little meat or fish. In early youth the Spartans began training for the hardships of war, and thenceforth they belonged not to their families but to the state. To the drill of the hoplite were added privations and tests of fortitude which they must endure without symptom of pain. At the altar of Artemis they submitted to public scourgings which sometimes resulted in death but never in complaint; they walked barefoot over rocks and hills; they wore the same garment winter and summer, and their diet was of the scantiest; but this they might supplement by hunting or by stealing whatsoever came in their way, so they were not caught in the act.

A Spartan could not marry until the age of thirty, and for him there was no such thing as domestic life. He must still eat at the table of his comrades and sleep in barracks, his wife residing with her parents and visiting her husband only in the disguise of male attire. Damsels were also trained in bodily exercises, in running, wrestling, and boxing, the contests of either sex being witnessed by the other. At these contests youths were naked, and maidens nearly so, wearing only a thin tunic open at the skirts and exposing the limbs. Yet from this public intermingling of the sexes, unknown elsewhere in Greece no evil results ensued, and nowhere were purer, prouder, or more handsome women than those of Lacedaemon, their beauty and vigor of form arousing the jealousy of their Athenian sisters. As Aristotle would have us believe, they were more than a match for Lycurgus, to whose rigid discipline they refused to submit; but this probably refers to a later time when many became wealthy, maintaining costly establishments and holding large estates acquired by dower or bequest; for daughters were favored more than sons in the disposition of the family property, the latter passing their lifetime in the service of the state, which provided for all their wants.

While in earlier times the lands of Laconia were mainly in possession of the rich, it is extremely doubtful whether Lycurgus actually made the subdivision commonly ascribed to him, giving to the Spartans 9,000 equal lots and to the Perioikoi 30,000. Nor can we accept the statement that he banished from Sparta all gold and silver money, permitting only bars of iron to be used. As a fact it was not until the following generation that the first Greek coins were struck by Phidon of Argos, and as late as the time of the Peloponnesian war gold coins were almost unknown. While iron may have served for the simple wants of the Lacedaemonian, he was by no means averse to the precious metals in whatever form they came to him, be it even as a bribe.

Little is known of Athens before the time of Solon, when was given to the world a code of laws which after the lapse of twenty-five centuries is still regarded as one of the most perfect of legislative systems. The reign of Pisistratus, despot Athens, was in the main beneficial. He was a consummate statesman, and wealthy withal, deriving his revenues from the Thracian and Laurian mines. It was he who erected the temple of Pythian Apollo, and by him was founded the stupendous monument to Olympian Jove, completed centuries later, the columns which remain being among the A most striking of Grecian antiquities.

Passing over the administrations of his sons Hippias and the author of the Athenian Hipparchus, and also that of Clisthenes, the author of the Athenian democracy, we come to the time when Greece is called upon to measure her strength with the most powerful of Oriental monarchies. The subjugation of the Greek colonies in Asia Minor by Cyrus and his lieutenants was followed by the Ionic revolt, suppressed after a hard fought campaign and attended with the destruction or depopulation of many Hellenic settlements. It was the burning of Sardis by the Athenians and Eretrians under Aristagoras that especially roused the wrath of Darius causing him to swear vengeance on the invaders and the

nation whence they came. "Who are these Athenians?" he asked, when shooting an arrow high in the air he called on the gods to aid him. He was soon to know who they were. If men and money could have achieved the conquest of Hellas, then surely Greece would have shared the fate of her Asiatic colonies, for the revenue of Darius, apart from that which was paid in kind, amounted to $23,000,000 in gold and silver, while his armies and navies could be multiplied almost at will.

The fleet of Mardonius, who was ordered to subjugate the country, was shattered by a storm with the loss of 300 ships and 20,000 men. Next came the battle of Marathon, where the Persian host met defeat at the hand of 10,000 Athenians and 1,000 Plataean allies. Notwithstanding their heroism it can hardly be doubted that, but for the death of Darius, the Greeks would have been finally brought under the Persian yoke. His reverses had served only to kindle his ire anew, to strengthen his resolve that the Athenians should be brought to his feet. All Asia and Egypt were his; their people, their wealth, and their resources; for three years satraps and sub-rulers were collecting troops, equipments, provisions, horses, and vessels of war and burthen for the mightiest expedition of ancient or modern times, and this he would lead in person. Fortunate it was for Hellas that at this juncture, when all his preparations were completed, the great king succumbed to a power greater than himself.

Of Xerxes, his son and successor it is related that he was a man of stately carriage, the tallest and most handsome figure amid all the as he was one of the vast host which later he led against the Greeks, most timid and faint-hearted. Four years he passed in completing the tremendous armament which in the autumn of 481 assembled at Sardis from every quarter of his empire. In the land-force alone were represented nearly fifty nationalities, and never before was such a heterogeneous multitude assembled on the face of the earth. There were swart Ethiopians from the upper Nile, their painted bodies attired in the skins of lions and panthers; there were Libyans armed only with staves; there were nomad tribes from central Asia, whose weapons were the dagger and lasso; there were also heavy-armed Medes and Persians, and of archers and cavalry an innumerable host. In the Hellespont were more than 1,200 triremes, with thousands of smaller vessels, and provisions were stored in huge magazines along the line of the intended march as far as the confines of Greece.

All the world knows the story of this famous expedition; how after his pitiful display at the bridging of the Hellespont, Xerxes built a ship canal through isthmus near Mount Athos, and then set forth from his Lydian capital amid the pomp of a royal procession. First came the baggage, carried by thousands of camels and other pack animals, followed by a solid mass of infantry, more than 500,000 in number. Next were 2,000 cavalry and spearmen, the choicest of Persian troops, the weapons of the latter with golden pomegranates reverse end. Ten sacred horses followed, richly caparisoned and gigantic build. Then behind the sacred car of Zeus came the chariot of Xerxes himself, drawn by Nissan steeds and surrounded with his mounted bodyguards, their spears tipped with golden apples. Other detachments of horse and foot were followed by the Immortals, whose spears were also decorated with ornaments of gold and silver. Ten thousand cavalry formed the rear guard of the first division, and then only half the array was in line, the remainder following in no special order, anamix or pell-mell, as Herodotus hath it.

On the road as the army passed was suspended on either side half the body of a victim slaughtered by order of Xerxes as a warning to his subjects. Among the wealthiest of these was an aged man named Pythius, a Phrygian, who at Celaenai had entertained the monarch with such lavish hospitality that he inquired the amount of his wealth. "Besides lands and slaves," was the reply, "I have 2,000 talents in

silver and 3,993,000 golden darics, thus wanting only 7,000 to make me worth 4,000,000 darics in gold. All this, O king, I will present to thee, reserving only the lands and slaves, which will more than suffice for my wants." But Xerxes would not have it so, presenting to Pythius the 7,000 darics required to make up the even amount. Encouraged by this mark of favor the latter, whose five sons were in the Persian ranks, begged that the eldest might be exempt; for he it was on whom he leaned during his declining years. "Slave." exclaimed Xerxes, "dost thou dare to ask for thy son, when I myself, my sons and brothers, my relatives and friends are marching against the Greeks.

For thyself and thy four sons the hospitality thou hast shown me shall serve as protection; but for the one whom thou wouldst keep in safety, the forfeit of his life shall be the penalty." Thereupon he gave orders for his execution, and that his body be severed in twain.

On his way toward the Hellespont, Xerxes turned aside to Ilium, where, as is said, his host drank dry or rendered undrinkable the stream of Skamander, famed in Homeric verse. Ascending the sacred hill where had stood the palace of Priam, he sacrificed 1,000 oxen to Athena, while by Magian priests libations were offered to the memory of heroes and demi-gods. Then he passed on to Abydos, where two wide bridges made fast by cables and resting on vessels moored at anchor lay ready for the passage of his army. Here from a marble throne erected on a neighboring hill, he surveyed his multitudinous array drawn up on the seashore and innumerable as the sands that covered it, while far amid the waters of sea and strait extended the sails of his triremes.

As the first beams of the rising sun slanted athwart the channel of the Hellespont, orders were given for the army to cross, the Immortals, crowned with garlands, leading the way, and the remainder following under the spur of the lash. Yet an entire week was required for the passage, and that without a moment's intermission by day or night. On reaching the Thracian plain of Doriscus, where the first muster was held, 1,700,000 foot passed through the pens erected to number them, like monster herds of cattle 10,000 at a time. There were also 80,000 horse, and of Libyan war-chariots a formidable array, while the crews of 1,200 triremes and 3,000 transports and smaller vessels swelled the total to more than 2,300,000, later increased to 2,640,000 before reaching the pass of Thermopylae. Themistocles was then at the head of affairs of Athens, "in whom the might of unassisted nature" as Thucydides remarks "was so strikingly exhibited." At Thermopylae 300 Held for a time the 3,000,000 at bay, until, surrounded by a detachment which a traitor led by a secret pathway it remained only to sell their lives as dearly as possible. Then Salamis and afterward Plataea; and then the Persians returned whence they came. At Plataea much spoil was gathered; more probably than had fallen into the hands of the Greeks during the entire campaign. First were the silver-footed throne of Xerxes and the scimitar of Mardonius which the Athenians received as trophies to adorn their Acropolis.

Then the remainder were collected for division among the several contingents, a liberal portion being first reserved for the gods—the Olympian Zeus, the Delphian Apollo, and the Isthmian Poseidon. There were golden darics, golden plate, and golden ornaments; there were horses richly caparisoned and armor of costly workmanship; there were the finest of carpets and vestments, with other tokens of oriental luxury, not forgetting the concubines of Persian chiefs.

Up to this time Sparta had been regarded as the head of the Hellenic confederacy; but the heroism displayed during the Persian war, the sufferings patiently borne in the common cause had won for Athens the respect and sympathy of Greece. Returning to the site of their former homes the Athenians began to rebuild the city destroyed by the Persians on a much larger scale, men and women working

day and night until the work was so far advanced that no hostile power could prevent its completion. The harbors of Piraeus and Munychia were improved and fortified, a wall 60 feet high and 15 in width securing the fleet from attack. Some twenty years afterward were begun, by the advice of Pericles, the long walls connecting Athens with her ports at Piraeus and Phalerum, a third being later added, while Cimon, returning with the spoils of a campaign against the Persians, built south of the Acropolis the most solid of Athenian ramparts. Then came other conflicts, as between Corinth and Corcyra, followed by the long struggle of the Peloponnesian war.

Turning to the age of Pericles, to whom Athens owed the most famous of its classic temples, let us see how the capital appeared at the zenith of its power and fame. Situated amid the central plain of Attica, which on three sides was enclosed by mountain walls and on the fourth protected by the sea, the city was four and a half miles from its principal port at the Piraeus, itself laid out as a town and with the largest arsenal and dockyard in Greece. The Acropolis, a precipitous rock 150 feet high, and at its summit with a series of terraces several acres in extent is, the center of the new metropolis, at once the site of its temples, its fortress and museum, around which the walls extend for 60 stadia in irregular circuit, but firmly and solidly on which latter hill the built. To the west and southwest are the Areopogus and Pnyx, citizens meet, and not far away is a fourth hill known as the Museum. On the east and west are two small streams, the Ilissus and Cephissus, the waters of both diminished by irrigating channels and by the summer heats. The thoroughfares are narrow and tortuous, houses of wood or unburnt brick, all of a single story, presenting to the streets a bare and windowless curtain wall. There are neither pavements nor sidewalks worthy of the name; the drainage is bad, the atmosphere is poisoned by heaps of refuse, and the sanitary conditions are no better than when early in the Peloponnesian war the plague destroyed one-third of the population. Later, during the Macedonian period, more handsome residences appeared; but there were never at Athens such palaces as those of Babylon and Nineveh, of Susa and Persepolis. It was on their temples and public buildings that the citizens expended their means, and these were in truth magnificent.

Entering the city on a bright summer morning and passing onward to the Acropolis, we might find ourselves in the midst of a magnificent procession, celebrating let us say the festival of the Panathenaea, instituted during the reign of Cecrops. There are youths and maidens, minstrels and flute-players, magistrates and priests with victims for the sacrifice, followed by the beauty and chivalry of Athens in chariots or on prancing steeds. In front is borne aloft the sacred peplos or curtain, richly embroidered with figures representing the exploits of the battlefield of heroes, gods, and demi-gods. This is intended for the temple of Athena Polias, whose statue it will presently adorn. But the Parthenon is the objective point of the Panathenaic festival, and its frieze, 520 feet in length, is filled with sculptured figures in low relief representing the national celebration.

Of the Parthenon, the greatest of all the great masterpieces of Athenian architecture, it may first be mentioned that it was never intended as a temple of worship, but rather as a storehouse for the treasures of the virgin goddess, the invincible goddess of war. In the pronaos were preserved the sacred vessels of silver and gold; in the cella, 100 Attic feet in length and called the hecatompedon, were the golden chaplets presented to victors in the Panathenaic contests, and in the adytum were the silver bowls and other utensils used at the festival. But the largest store of treasure thus far collected in Athens or in Greece was in the Opisthodomus, in rear of the cella; for here had been removed, as I have said, from Delos the accumulated treasure of the allies, equal in purchasing power to d more than $100,000,000 as money is now computed.

On the highest point of the Acropolis, on the site of a former temple destroyed by the Persians, was erected from the design of Ictinus this monument of Athenian art. It was of white Pentelic marble, resting on a limestone formation, and in the purest style of the Doric order, 230 feet in length, 100 in breadth, and 66 in height.

On the metopes between the Doric triglyphs in the frieze of the entablature were sculptured figures in high relief, representing the mythology of Attica. On the western pediment was portrayed the combat between Athena and Poseidon, and on the eastern side were the choicest of all the magnificent groups which formed the glory of the Parthenon. Of these only fragments remain; for the best were destroyed by Christian iconoclasts in converting the temple into a church. Among them were the world-famous torso known as the Theseus, the seated figures of the Parcae, and the noble head of the coal-black steed yoked to the car of Night, with others relating to the birth of Athena, as she sprang full-panoplied from the cranium of Jove.

In the adytum, where was the Parthenon proper, stood a chryselephantine statue of the goddess executed by Phidias, and second only to his statue of Jove at Olympia. Including the pedestal it was nearly 40 feet high, and represented Athena as standing erect attired in golden robes, her shield resting on the ground, a spear in her left hand and in her right a figure of Victory. Gold to the value of 45 talents, or more than $50,000, was contained in this work, and was so adjusted that it could be removed at pleasure. Opposite the Propylaea was a colossal bronze statue of Athena Promachos, 70 feet high, the tip of the spear and the crest of the helmet rising far above the roof of the Parthenon, and serving as a landmark for vessels approaching the port.

The Erectheium, devoted to the worship of Poseidon and Athena Polias, was the most sacred of all Athenian sanctuaries. It was of the Ionic order, its slender pillars confronting the massive Doric columns of the Parthenon near the northern wall of the Acropolis. In the eastern chamber was an ancient statue of Athena, before which night and day burned a golden lamp. Here was the abode of the sacred serpent, the guardian of the Acropolis; here was the throne from which Xerxes witnessed his defeat at Salamis, and here the sword of Mardonius, who fell at Plataea. In another chamber was the sacred olive sprung miraculously from the soil, and from which, as was believed, came the olive groves which formed one of the most valuable products of Attica.

Crowning the brow of the hill, and covering its entire western front, was a structure of Pentelic marble 170 feet in length. This was the Propylaea or vestibule of the citadel, erected at a cost of 2,000 talents, or $2,300,000. In the center was a portico 58 feet wide, with fluted columns of the Doric order, each of the wings forming a Doric temple, their antae fringed with an azure embroidery of ivy leaf, while the architectural moldings were resplendent with tints of red and blue. In front of the southern wing was the small Ionic temple of Nike Apteros, erected by Cimon with the proceeds of Persian spoils. As late as 1676 the original structure was almost intact, but was a few years afterward destroyed by the Turks and its fragments used for the erection of a battery. Of these sufficient were recovered to reproduce in outline one of the most graceful of Athenian fanes.

Such were the most famous architectural monuments of the Acropolis, no longer used as a residence quarter for Athenian nobles, but appropriated to the temples of its gods, and serving also as a museum in which were stored the choicest productions of sculptors and painters. In the city itself were other monuments, several of them erected by Pericles or Cimon, as the Theseum, now serving as a museum a of antiquities, and the Stoa Poikile where Zeno's disciples met a colonnade running

parallel with the Agora and backed by a wall lined with paneled paintings. The Agora, or market place, where was the center of civic and commercial life, owed many of its structural and decorative features to the Pisistratids, among them the altar of the twelve gods, the Stoa Basileius where the archon presided, and the Bouleuterium, founded as was said by Theseus, where public benefactors dined at the public expense. Later were many additions and improvements Cimon for instance building several porticos, while his brother-in-law was equally liberal in the disposal of his private fortune. Adjacent to the Agora was the suburb of the outer Ceramicus, where was the burial place for citizens entitled to funeral honors. Thence beyond the wall a road lined with monuments to those who had fallen in battle led to the Academy, where Plato lived and taught and died, its grounds laid out in shaded walks and groves richly adorned with statuary.

On an eminence south of the Parthenon and near the bank of the Ilissus was founded by Pisistratus the great temple of Olympian Jove, completed more than six centuries later by the emperor Hadrian.

The interior was in three compartments divided by double rows of Corinthian columns, over the architraves of which were later hung gold or gilded bucklers, a contribution from Mummius after the sack of Corinth. In the statue of Jove, 40, or as some have it 60, feet in height, the combination of gold, flesh-tinted ivory, and precious stones was dazzling in effect, as though its surface were covered with electric fluid. Hence the impression that Jove himself lived in his statue and kindled it with his lightning. On the feet of the throne were dancing figures of Victory, and on the front feet Apollo and Diana were transfixing the children of Niobe.

Not far away was the Lyceum building, also founded by Pisistratus and probably completed by Pericles; adjoining it was the Gymnasium, the favorite haunt of Aristotle and the original home of the Peripatetic school of philosophy. Of the Areopagus and Pnyx I have already spoken, the former being named after the tradition that here, before the assembled gods, Ares was brought to trial by Poseidon for the murder of his son. It was on this hill of Mars that the senate met in earlier days and that the members of its court administered justice in the open air, two blocks of limestone still in existence corresponding with those described by Euripides as occupied by the accuser and accused.

Dramatic performances were held at Athens from time immemorial in wooden theatres or on platforms loosely constructed for the purpose. It was the collapse of one of these structures, about the year 500 BC, that led to the erection of a marble building with tiers of rock-hewn seats, on the south-eastern slope of the Acropolis, a site later occupied by the Dionysiac theater. The latter was not completed until 337: and as restored several centuries later was a mammoth edifice, with stage of solid masonry and rows of marble thrones for those whom the nation honored. It was roofless, though probably covered with an awning, and from the upper tiers was a view of the sea and of the hills of “sea-born Salamis." Nearby was the Odeon, used chiefly for rehearsals and as a refuge for the audience in rainy weather, though protected only by a conical roof of canvas, its original canopy, as was said, being fashioned from the tent of Xerxes, captured at PIataea.

The Greeks had a passion for the drama, and especially their women, who loved nothing better than to sit in the Dionysiac theater from early morn till set of sun, listening to a succession of tragedies. Household duties were light in Athens, and in the homes of the wealthy were performed by slaves, leaving the mistress with much time on her hands. Moreover there was only one meal to cook, and that was the dinner or supper, served about an hour before sundown; breakfast, taken only by women and children, consisting of a piece of dry bread, with perhaps a bunch of grapes or figs. The

occupation of men was almost restricted to their civic duties; for to engage in any useful calling was beyond the dignity of an Athenian. Their idle hours, of which they had many, were passed in the Agora or other public places, where politics and not drachmas were the usual theme of conversation.

In the earlier tragedy of the Greeks there was nothing mournful, the word merely signifying “the goat-song" which followed the offering of a goat to Dionysus at the celebration of his festivals. In the comedy, "village song,” a similar hymn was used as the occasion for merriment, jest, and jibe, often at the expense of the spectators. Thus at first there was little difference between tragedy and comedy, a chorus of rustics disguised as satyrs, and at the vintage festivals often as drunken as satyrs, being the only performers. Presently one of them assumed the role of Dionysus or of his messenger, reciting the adventures of the god interspersed with choral responses. Then between the leader of the chorus and an actor selected from its members a dialogue was introduced, the latter appearing in various characters and thus giving to the performance a dramatic interest. This change is commonly ascribed to Thespis, whose first representation was given in 535, during the reign of Pisistratus.

Both plot and story were selected from Creek mythology, almost to the exclusion of recent or contemporary events, Phrynichus, whose plays were acted a few years later, being fined 1,000 drachmas for introducing a tragedy which described the capture of Miletus and the massacre of its inhabitants, moving his audience to tears and causing his subject to be denounced as ill-chosen.

Such was the stage when Aeschylus appeared, his magnificent tragedies rendered in small wooden theaters corresponding to the barns of Shakespeare’s time; for as yet only the foundations of the Dionysiac theater were above ground. As Homer was the father of Epic poetry, so Aeschylus was the real founder of the Attic drama. First among his improvements was the introduction of a second actor and the subordination of the chorus to the dialogue, which now became the leading feature in the performance. Costumes were enriched; new masques were invented; the choral dances were improved; the stature of the actor was increased by the use of cothurni, or thickly soled buskins, and for the first time painted scenery appeared upon the stage, prepared with artistic skill and due regard to perspective. Thus, and he it was who endowed with besides being a dramatist, Aeschylus was somewhat of a stage manager; dramatic art what was before but the rudest form of the drama. By Sophocles, at first his rival and then his rather successor, a third actor was introduced; the choral parts were curtailed, and the chorus itself became rather a judge or commentator than a factor in the evolution of the play. By Euripides other changes were made, but not for the better, the choruses becoming feeble under his treatment, while in his prologues the entire plot with all that led up to it was laid before the spectator.

The great masters of the drama were the most prolific writers, Aeschylus being accredited with 70 tragedies, Sophocles with 113, and Euripides 92. Of these, fortunately perhaps for our college students, only a few of each remain; yet they are sufficient to make us fully acquainted with the genius of their authors. Aeschylus had fought at Marathon, at Artemisium, Salamis, and Plataea. Gods, demi-gods, and heroes are his theme, and these he portrays with Homeric grandeur of diction and with all the fervor of Hellenic patriotism, quickened by the experience of one who was famed as a soldier before he became famous as a poet. In sublimity of style, though bordering at times on the turgid, in the gorgeous imagery in which he depicts the superhuman and the irresistible march of fate, he has no superior, while even in his loftiest conceptions is a vein of speculative thought, striving to explain the contests between deities supernal and those who inhabit the underworld. Sophocles made his public

appearance at the celebration which followed the battle of Salamis, when naked and with lyre in hand he led the chorus which danced and sang around the trophies of victory. He was then a youth of sixteen, and thereafter we hear little about him until many years later he wrested from Aeschylus the tragic prize awarded by Cimon and his colleagues. In grandeur of style and conception inferior to Aeschylus, his works had more of ideal beauty, and with their perfect delineations of character and plot, gave to Greek tragedy the highest development of which it was capable. In the plays of Euripides is a transition from purely classic to romantic drama, his subjects pertaining rather to scenes of everyday life than to myths and traditions; for the spirit of skepticism was abroad and is reflected in his dramas, where is much philosophical disquisition, often spiritless and out of place. There is present none of the magnificent word-painting of Aeschylus and Sophocles; his dialogues are feeble and garrulous, and his choruses lacking in dignity, their sayings filled with the stalest of truisms and lachrymose complaints. Yet there is much of pathos and sympathy in his writings, giving them more of human interest and bringing them nearer to the modern world than those of his predecessors.

Aristophanes was the acknowledged master of comedy; for though only one in a long succession of comic dramatists, there were none who had the boldness of his stroke, the richness of his expression, and the exquisite play of his humor and fancy. While dealing mainly with political characters, his satires were directed against all classes of citizens; even women fell under his lash, and gods and institutions were attacked with unsparing license. Cleon was a favorite mark for his shafts, from which even Pericles did not escape; Socrates he covered with abuse, and Euripides served as the butt of his ridicule. Probably no man in Athens held so much power as Aristophanes; for the thousands who had laughed at his sarcasms in the theater of Dionysus might be required to pass sentence in the popular assembly on those whom he had denounced .

The choicest productions of Attic literature center around the age of Pericles, and as with Rome in the Augustan era, or with England in the Elizabethan period, were given to the world within less than half a century. Yet before this time were many famous names as those of Homer and Hesiod, of Sappho and Aleaeus, of Simonides and Pindar, from whom epic, elegiac, and lyric verse received their highest development. Simonides, a native of Ceos, where the god of song was chiefly worshipped, belonged to a family of poets, and except by Pindar, who appears to have been jealous of his fame, was honored as the poet laureate of Greece. He lived with his friends, or rather upon his friends, whose praises he sang for money, while by his greater works, as those on the heroes of Marathon and Thermopylae statesmen, he secured for himself an ample fortune.

Kings and princes, and warriors were among his admirers; for with all his failings he was assuredly one of the greatest masters of the age, and by none have been better illustrated his own saying that "poetry is vocal painting, as painting is silent poetry.” He was, moreover, a man of the world, one who thoroughly appreciated the good things that the world had to give. "Let us seek after pleasure," he said; "for all things come to one dread Charybdis, both great virtues and wealth." At the court of Hiero in Syracuse, where his days were ended, he was asked by the queen whether riches or genius were the greater gift. "Riches," he replied, "for genius always attends at the gates of the wealthy."

Poetry had reached its highest development before prose literature in its proper sense began to exist, the former embodying nearly all that the nation possessed of oratory, history, and philosophy. For a century at least before the time of Herodotus, who saw the Attic drama at its best, there had been writers of prose; but these were for the most part merely compilers of myths and genealogies, though

some wrote descriptions of foreign lands and there were a few historic and philosophical treatises. Between the two greatest of Greek historians, Herodotus and Thucydides, there is nothing in common either as to style or treatment, and though contemporaries, they write as men who had lived many ages apart. The one is an historical artist and the other an historical thinker, Herodotus inclining to historic romance, in which is a large intermixture of mythology, while his account of the war with Persia and his descriptions of the countries in which he travelled—the latter the most interesting portion of his narrative—are filled with exaggerations.

Yet his story has a certain epic unity, a largeness of conception, and a method entirely his own.

Thucydides, whose theme was the Peloponnesian war, undertook his task because, as he said, it was possible for him to record with accuracy the greatest events in the collective annals of his country, events which had happened during his own lifetime and of which he could judge impartially. It was to him almost a life work and altogether a labor of love, one to which he could devote all his time and powers; for he was a wealthy man, inheriting from his father valuable gold mines on the Thracian coast. Its descriptive power, its critical acumen, its grasp and mastery of the situation, and above all the strict impartiality with which is portrayed the Great War in which his own countrymen were the leading participants, make of this work what its author claims, "a possession forever." Its style, though at times obscure, is wonderfully condensed, and not even Tacitus or Bacon could say so much in so few words. Take, for instance, his description of the plague at Athens, from which he was himself a sufferer; in all literature there is no more impressive or tragic episode, and none which told with such brevity and simplicity. Xenophon in his Hellenica takes up the annals of his country where Thucydides left them at the time of his death; but though a clear and vigorous writer, his works are of no great historic value.

With the Athenians oratory ranked among the fine arts, and as such was studied by all who aspired to office. Antiphon was the leading representative of the older school, whose style was grave and dignified, Lysias possessing more of ease and grace, while Isocrates, who had many imitators, appealed rather to the reader than to the hearer. As to Demosthenes there can be but one opinion; that he excelled all others in power of expression and versatility of theme. By his rivals and detractors he was accused of posing for effect; but while doubtless studying effect he was also a natural orator. No one had at such perfect command the rich resources of the Attic language, and in him it has been said that all the best elements of Athenian literature were combined. Hyperides, second to the great master and second only, was perhaps his superior in wit and pathos, while Aeschines was ranked above either by those who preferred theatrical display to the true ring of oratory.

Thales of Miletus was the first of a long line of Greek philosophers, and the founder of the Ionic school, giving to his countrymen an elementary knowledge of geometry and astronomy. To his successor, Anaximander, is ascribed the introduction of the sundial, and one of the first maps or charts as an accompaniment to a geographical treatise which was among the earliest of prose compositions. Anaxagoras of Clazomenae, the most famous of the school, divided among his relatives the large inheritance bequeathed by his father, and removing to Athens, gave himself to the study and teaching of philosophy. Rejecting the doctrines of his predecessors, who attributed the origin of all things to some elementary form of matter, he believed that a supreme intelligence, apart from the visible world, had given order and system to nature's forces. Among his admirers were such men as Pericles and Euripides; but he was accused of impiety, and only through the pleading of the former

was sentence of death changed into fine and banishment. Of the life of Pythagoras about all we know is that his father was a wealthy merchant and that he travelled much. Even of his views, except as to the transmigration of souls, our knowledge is extremely limited; for he wrote nothing, though to many writings his name was forged, and it is almost impossible to distinguish between his doctrines and those of his successors. Most of his disciples were rich, forming themselves into a secret society bound by a sacred vow, and from Croton in Italy where his later years were passed his doctrines spread rapidly throughout the Hellenic world.

As with Anaxagoras, whose views in part he accepted Socrates left his doctrines for others to record, and like him was condemned for impiety, sharing the fate of other great reformers before and since he was rather an educator than marks in his Apology, a philosopher, one whose mission it was "to rouse, persuade, and rebuke;" and this he made his life work, passing his time in converse with men of all ages and conditions, in the Agora at its most crowded hours, in the public walks the gymnasia, and the schools. While termed a sophist, he was never so called by his friends; for the title, though applied in former ages to Homer and Hesiod, and even to the seven sages, had fallen into disrepute. His message was to all, though variously received, and by many with indifference or irritation; for it was not with ignorance that he contended, but with "ignorance mistaking itself for knowledge;" and minds so involved he handled unmercifully, unmasking without compunction their “false conceit of wisdom."

"No one," exclaimed Alcibiades, at the symposium which Plato describes, "would suppose that I had any shame in me; but I am ashamed in the presence of Socrates." No man in Athens was better known, and except by those to whom he was a counselor and friend, perhaps no man was more disliked. Yet even among the wealthy and noble he did not want for friends, though he never courted their acquaintance. "To want nothing," he said, "is divine, and to want as little as possible is the nearest approach to divinity." As for himself he knew neither luxury nor comfort; his diet was of the poorest; he walked the streets barefooted, and wore the same garments winter and summer. Nevertheless he was not averse to social pleasures, and at festal gatherings could drink more wine than any of the guests without feeling its effects. To refrain from harmless gratifications through fear of indulging to excess, betokened, as he thought, a lack of self-control, and his power of will was as absolute as his power of endurance was unyielding. After the lapse of twenty-three centuries, his life, his sayings, and his methods, as described by Plato and Xenophon, are still considered as among the richest treasures of Attic literature.

Xenophon, not Plato, was the Boswell of Socrates; for in the dialogues of the latter, who has been termed “the father of idealism,” are much more than a record of the doctrines of Socrates, with his own comments thereon. Here is reflected the intellectual life of Athens in its highest form of development, with all its freedom, urbanity, and warmth. Though Socrates is the central figure, many others are introduced into these Platonic groupings amid the classic groves of the Academy, many whose names were already historic, but are used only as in momentary converse with the great teacher and inspired by his electric touch.

Pervading all the works of Plato, the most fruitful of philosophical writers, is his zeal for human improvement, his faith in the supremacy of reason and truth, than which, as he believes, the gods have no greater good to bestow. "All philosophic truth," says Ferrier, "is Plato rightly interpreted; all philosophic error is Plato misunderstood.”

Of the doctrines of the Cynics and other offshoots of the Socratic school little is known except that they were far astray from those of the great master. Themselves the most despicable of men, the Cynics had the utmost contempt for all who were not of their order, and of the intensity of their scorn, and the insolence with which it was expressed, the well-known reply of Diogenes to Alexander the Great is perhaps but a mild example. Later their maxim of living strictly according to nature degenerated into the brutal sensualism and dog-like habits which probably gave to them their name.

The teachings of Aristotle would have been more influential if he had lived during the creative period of Hellenic literature; for it was largely his task to set in order what others had discovered in the field of philosophic investigation. Nevertheless he had many disciples in the shaded walks of the Lyceum, where his lectures were delivered and most of his works composed. Of all ancient systems of philosophy, his was best adapted to the practical needs of mankind, and hence the later popularity of the Peripatetic school, whose works, especially those of its founder, are still regarded as among the ripest fruits of intellectual research. On nearly all branches of human knowledge he left the imprint of his genius, while as to the art of logic the writings of more than two millenniums have added little of value to the methods which Aristotle taught.

Among the dramatis personae in Plato's Parmenides is Zeno, founder of the Stoic school, whom he describes as "a man of about forty, tall and personable." While somewhat astray in his chronology, Plato's account of the Zenonian dogmas and paradoxes is doubtless worthy of credit. The latter are full of inconsistencies and absurdities, especially those which would disprove the existence of plurality and motion, attributing all things to the immutable One which, alone is existent. "If all that is is in space," he says "then, space itself must be in space", and so on ad infinitum. Yet, if his teachings contain little of value, they are those of an honest thinker, searching in new fields of thought, though with indifferent success. The temperance and self-denial, the gravity and decorum characteristic of his school recommended its doctrines to the Romans, the emperor Marcus Aurelius being one of the leading exponents of Stoic philosophy.

Of the teachings of Epicurus, whose works have perished, nearly all that have come down to us are embodied in the poem of Lucretius De Rerun Natura. "Steer clear of all culture" was his advice, and this he put into practice, priding himself that he was the only self-taught founder of a philosophical sect. In physics, while accepting the atomic theory of the Pythagoreans, he ascribed all the striking phenomena of nature to natural causes; not denying the existence of the gods, but merely their interference with the affairs of this world. Thus after giving his own version as to the cause of thunder and lightning, "these," he says, "may be explained in many other ways; but let us have no myths of divine action." Rejecting the fatalism of the Stoics and the purely intellectual training advocated by Plato and Aristotle, he believed that this life was the only one; that since there were neither hopes nor terrors as to a future world, pleasure should be the chief aim of existence. But in pleasure, as he defined it, there was nothing of excitement or sensual degradation. To him it was not an affair of moments but a habit of the mind, an enduring and all-pervading tranquility, coupled with the faculty of balancing against the sense of enjoyment the evils that might ensue. "We cannot live happily without living wisely," and the power so to live was to him more precious than all the teachings of philosophy. Not only in Greece, but in Asia and Egypt, Epicurus had crowds of followers, far outnumbering the adherents of other sects; his disciples were of both sexes, and while the relations between them may not have been entirely Platonic, nothing could be further from the truth than the stories of debauchery and licentiousness circulated by his rivals. Purchasing for 80 minae, or $1,500,

a garden almost in the heart of Athens, he became the leader of a community such as had never before existed in the ancient world. Their mode of life was simple, even to austerity; barley bread was their principal food, and water their drink, though the use of wine was not forbidden. "Send me," he writes to a friend, "some Cynthian cheese, that I may prepare for my guests a sumptuous feast." All his property, which appears to have been considerable, he left to the society of the garden and to certain of its youthful members.

Of what may be termed the literature of the decadence, from the time when Philip of Macedon gave the death blow to Greek independence. Alexandria became the center during the reign of the earlier Ptolemies. Of its library and museum I have already spoken in connection with the wealth and refinement of the former capital of Egypt, its schools being characterized rather by research than originality, though among many able scholars were not a few who attained to eminence. After the Roman conquest, when "Greece led captive her rough conqueror." Rome gradually became the center of learning, and by men of culture to speak and write in Greek was considered a necessary accomplishment. The works of the classic masters were eagerly collected; learning and letters found encouragement, and all branches of Hellenic lore were cultivated.

Beginning with the age of Sulla, Greek libraries were founded in Rome; Augustus, Tiberius, and the later emperors contributing largely to the treasures of the great library planned by Julius Caesar.

Polybius was the Thucydides of the Graeco Roman period, and the last whose works display the simple elegance of the classic writers, contrasting sharply with the florid rhetoric of his time. The Universal Dictionary of Diodoros Siculus is a valuable compilation; but in all the literature of the empire, coextensive with the empire itself, only two names have risen above the dead level of mediocrity, and these are Lucian and Plutarch, the dialogues of the former and the biographies of the latter still retaining a worldwide popularity. Yet this was the most prolific period of Greek literature, if such it can be called. The store of materials was enormous, embracing all branches of learning, and on these an army of critics and commentators, compilers and plagiarists labored with untiring industry. Their productions were well rewarded, for when politics was no longer the pathway to fame and riches, literature became the chief resource for educated men. But among them was neither originality nor purity of style, their tricks and turns of language forming but a sorry substitute for the beauty and grandeur of the great masters whom they attempted to imitate. Doubtless they were learned men in their way; but one thing they were incapable of learning—that they did not know how to write. Of Byzantine and of modern Greek authors no mention need here be made; for with the corruption of the language during the earlier Christian era, and the edict of Justinian closing the schools of philosophy, the classic literature of Greece was dead.

Of Grecian architecture and sculpture I have already briefly spoken; and here we cannot stop to trace their various stages of growth, from the wooden temples and rude wooden images of the gods to the glories of the Acropolis and the wonders which Phidias wrought in ivory and gold. As in the tragedies of Aeschylus and Sophocles the drama reached the highest form of development of which it was capable, so art could find no higher form of expression than in the statuary of Phidias and Praxiteles. Painting belongs to a later period; for in the embellishment of their temples the earlier Greeks had no use for pictorial art. By Homer it is not mentioned, though he has many descriptions of raiment interwoven with figures. Apart from the coloring of statues and columns, the most ancient specimens that have come down to us are found on Corinthian vases belonging to the earlier portion of the sixth

century, about which time we begin to hear something of the schools of Asia Minor, where the Greeks had many colonies. One of the earliest paintings, and doubtless one of the rudest, was executed for Mandrocles, who built for Darius the bridge which spanned the Bosphorus, and portrays the monarch seated on his throne while his army passes in review. In Athens the first limner of repute was Polygnotus, a contemporary of Phidias, his chief work being the decoration of temples and other public buildings. While merely a representation of statuesque figures on a flat surface, his depictions show many improvements over those of his predecessors, especially in the delineation of female figures and drapery.

Apollodorus was the first to introduce the effects of light and shade which Zeuxis used to such advantage. For his Helen, the most famous of his paintings, executed for a temple in Croton, five of the most beautiful maidens of that city were selected as models, so that from their graces and attractions he might create a figure of ideal beauty. Kings and nobles were among his patrons, and for an artist he became exceedingly rich, giving away his pictures but refusing to sell them; for as he said they were above all price. Though his fame appears to have turned his head, we need not accept the story that he appeared at Olympia in robes on which his name was woven in letters of gold, a more probable version being that he presented to its temple a tapestry with the usual inscriptions in golden letters. Parrhasius, the victor in the well-known contest with Apelles was also one of the vainest of men, claiming descent from Apollo, styling himself prince, and arraying his form in purple robes, with the scepter and crown of a king.

Yet if he had more than his share of the proverbial vanity of artists, he belonged unquestionably to the foremost rank the outline of his figures standing forth clearly from the foreground, as in that of Theseus which later adorned the Roman capital, causing his works to be widely imitated by students of later schools. Apelles, court painter to Philip of Macedon and Alexander the Great, accompanied the latter in his expedition to Asia, settling at Ephesus where was his later home. For his Aphrodite Anaduomene it is said that he took for his model the courtesan Phryne whom he had seen at Eleusis in the costume of the bath. As Aelian relates, he painted the figure of a horse so true to life that the animal which served as his model neighed in its direction; whereupon he rebuked Alexander who was criticizing the picture, by declaring that the brute knew more of art than the king. To Apelles is attributed by Pliny the saying which has passed into a proverb; ne sutor ultra crepidam, the words being addressed to a cobbler who found fault with the painting of a boot. To the lifetime of Zeuxis and Parrhasius belong some of the finest pinakia or vase- paintings of the Greeks, those which have been preserved showing in their freedom and facility of drawing the influence of the great masters on the lower grades of art.

In Athens, in Corinth, Ephesus, other art centers the sculptor and painter worked not only for their patrons but for their fellow-citizens, by whom as they knew their efforts would be judged. Success depended not on the decision of connoisseurs but on the verdict of thousands of persons all more or less qualified to form an opinion for themselves. And so it was with literature in all its branches, with music and the drama. Never, perhaps, before or since, was there a more highly educated community than the Athenians of the days of Pericles and his successors, while their commonwealth was still independent and in the full vigor of national life. In boyhood the children of the wealthy, with their physical powers carefully developed, were trained in all the accomplishments of the age, in music, in singing as members of a chorus, and in declaiming with propriety of accent and gesture passages selected from the choicest productions of orators and poets. Then came what may be termed their

university course, the student attending the Academy, the Lyceum, or other institutions where were lectures on philosophy, science, and rhetoric. On reaching manhood he had no duties except those which pertained to all Athenian citizens as members of the body politic. His time was his own, and his morning hours were usually passed in the Agora, where was the center of political as well of business activity. Then in the law courts or the senate chamber he might listen to the pleadings of his favorite orators, or in the temples of the Acropolis study the architecture of Ictinus and the statuary of Phidias, ending his day at the theater, where he would be in time for the last tragedy in one of the trilogies of Aeschylus.

In all places of public resort the sense of civic duties and privileges was quickened, the entire training and environment of the man being in relation to his citizenship; so that it is difficult for us to realize the intensity of patriotism and affection with which the Athenian regarded his capital. In this, the highest social organization in the world, most of the citizens were familiar with the masterpieces of literature and art, and like the authors or artists themselves had taken part in many of the scenes which they described. Aeschylus had fought in all the great battles with the Persians; Thucydides had commanded a fleet during the war of which he was the historian; Sophocles had served in the ranks at Potidae, Delium, and Amphipolis, in the first of these battles saving the life of his pupil Xenophon, a central figure in the expedition which he describes. Ictinus, Phidias, and Praxiteles embodied in marble and bronze, in ivory and gold, not the mere visions of the studio but those which had been inspired by their country's greatness and by contact with those who had made her great.

In a word, Hellas during her classic days was a region full of beauty and glory, until the close of the Peloponnesian war left Athens but a shadow of her former self, her revenues, her fleet and fortifications destroyed, and her empire a dream of the past.

Sparta had made war on Athens in the name of liberty; yet after conquering her rival, not by strategy but by brute force and the aid of Persian gold, she established in the committee known as the thirty tyrants one of the worst forms of tyranny. But their reign of terror was soon at an end, and within a few months the Athenian democracy was restored. A few years later, after Conon’s victory at Cnidus where the Spartan fleet was shattered, the Long Walls of Athens were rebuilt. Presently came Leuctra, where the tactics of Epaminondas gave to Thebes the supremacy among Grecian states, until the battle of Chaeronea placed Hellas at the feet of Philip of Macedon. It was against Philip, after his usurpation of the throne, that the most stirring orations of Demosthenes were directed, and for this he was never forgiven, either by the monarch or his more famous son. Demosthenes being at the head of the list of orators demanded by Alexander the Great from the Greeks who tendered their submission after the chastisement inflicted on Thebes.

After his father's assassination, in 336, Alexander promptly suppressed an insurrectionary movement, and there were none to dispute his claim to the throne of Macedonia and the captain-generalcy of Greece. Thebes, one of the most ancient of Grecian cities and from time immemorial a power of the first rank, he treated with special severity. Except the Cadmea, reserved for a Macedonian garrison, and as is said the home of Pindar, he razed all its buildings to the ground, and of its inhabitants 6,000 were put to the sword and 30,000 sold into slavery. Though the city was rebuilt some twenty years later, it never again played a leading part in the history of Hellas, and today the lion monument of which fragments are still to be seen on the field of Chaeronea is a more impressive memorial than anything that the present city contains.

Ever since the expedition of Cyrus the younger, the conquest of Persia had been the dream of military leaders, Philip having assembled for this purpose an army gathered from every quarter of Greece. None were more eager than Alexander to carry out his father's project; for he loved fame and power more than the enjoyment of the large estates and revenues which he possessed in his private right, and of which he thought so little that he distributed them among his adherents. He was a sanguine, as well as a liberal prince, and we can fully believe in the well-known answer which he made to Perdiccas, when asked what he reserved for himself, "Hope," said the conqueror of Persia. It was at this time, after demanding the surrender of certain Athenian orators of anti-Macedonian proclivities, that he offered to Phocion a present of 100 talents. But said Phocion to those who brought the money: "Why should I be selected as the recipient of his bounty?" "Because," they replied. "Alexander considers you" the only just and honest man among them.

Like other great captains Alexander loved war for its own sake, even more than for that which victory brings, saying to his physician when prostrated by fever, "I cannot remain longer here; for you know I do not care so much to live as to fight." While ranked among the foremost of generals, whether in ancient or modern times, it is probable that he has been somewhat overrated. When setting forth for the conquest of Persia, after arranging the affairs of Greece, he was about to match himself with a foe of far inferior caliber to those whom Hannibal, Caesar, and Napoleon encountered, and of this inferiority none were so well aware as he. Moreover, Persia was at this time a loosely jointed empire, more so even than is now the empire of Turkey, one consisting of divers races, differing in religion, language, customs, and held together by the last and feeblest of its monarchs. The expedition of Cyrus the younger, followed by Xenophon's masterly retreat, had shown how easy it was for a few thousand Greeks to invade and afterward make good their escape from a country whose people were divided against themselves, and of most unwarlike temperament. Nevertheless it was a bold undertaking to penetrate into the heart of this vast and thickly peopled kingdom, and confront its unnumbered hosts with less than 35,000 men, though among them were the veterans of the Macedonian phalanx, probably the choicest troops in the world.

Contrast this slender force with the army which, after the victory on the Granicus, Alexander defeated on the plain near Issus, 600,000 in number, apart from the multitude of attendants which always followed in the train of a Persian monarch.

The array of Darius Codomannus, as it set forth on its disastrous campaign, resembled rather a military pageant than an army marching to the battlefield. In front were borne the sacred altars of silver followed by the Magi singing hymns, and accompanied by 365 youths in purple; then came the chariot of Jupiter drawn by white horses, the equerries in white and each with a rod of gold in his hand. Then chariots in sculptured gold and silver preceded a body of horse and the ten thousand Immortals, the latter with golden collars and arrayed in robes of gold tissue covered with gems. Next were the kind's relatives in glittering dress and armor; then the king's guard, and finally the king himself, seated in his chariot as on a throne side by side with images of the gods in gold and silver and jewels.

"Darius," says one who describes this procession, "was clothed in a vest of purple striped with silver, and over it a long robe glittering with gold and precious stones, in designs that represented two falcons rushing from the clouds and pecking at one another. Around his waist he wore a golden girdle, called cidaris, after the manner of women, from which hung his scimitar, its scabbard flaming all over

with gems. On his head was a tiara, or mitre, and around it a fillet of blue mixed with white. On each side of his chariot walked 200 of his nearest relations, followed by 10,000 pikemen, their weapons adorned with silver and tipped with gold,—by a rear guard of 30,000 infantry, and by the king’s led horses, 400 in number. Behind them were the chariots of his wife Statira and his mother Sysigambis, with their female attendants on horseback. In fifteen large chariots were the king's children and those who had the care of their education, while in 360 carriages were seated the ladies of the court dressed in the costumes of princesses. The king's treasure, guarded by a great body of archers, was sufficient to load 300 camels and 600 mules, after which came other chariots containing the wives of the crown officers and of the greatest lords of the court. The sutlers and servants, with a body of light-armed troops, closed the procession."

But though twenty to one in number, this unwieldy host was no match for Macedonian troops, and especially for the Macedonian phalanx. Moreover Darius had placed his army in a trap, the narrow plain between the mountains and the sea in which the battle of Issus was fought, affording scarcely room to move. Here, wedged together like the Romans at Cannae, numbers were a disadvantage, and the Persian cohorts were quickly massacred or routed, only the Greek mercenaries and a portion of the cavalry making a brief resistance. Casting aside his royal robes, the craven monarch was one of the first to flee, and in such panic flight that, mounting the swiftest of his coursers, he left wife, son, and mother at the mercy of the conqueror. Alexander treated them kindly and respectfully, assuring their safety and bidding them retain their titles, for he came not, he said, to make war against Darius personally, but to determine who should be master of Asia. That he was already its master there was substantial evidence in the 4,000 talents, or nearly $5,000,000, found in the royal treasure chests, while in the pavilion of the fugitive king a perfumed bath and a table richly furnished for his repast gave to the victor a first acquaintance with oriental luxury.

While Parmenio, his second in command, captured without striking a blow the royal treasures and stores of Damascus, Alexander, proceeding southward into Phoenicia, received the surrender of Sidon, and from Tyre a present of a golden crown, with an offer of submission provided he would not enter the city, for this no foreigner must do. The Tyrians persisted in their reservation, and hence one of the most memorable sieges recorded in ancient history, second only to that of Troy, and with its records better authenticated. Of this the details are too familiar to need description, and of the result mention has been made in connection with Phoenician annals. The inhabitants of Gaza, an ancient Philistian stronghold, which for a time resisted his arms, he treated as he had treated the Tyrians, putting them to death or selling them into slavery. Thence, as Josephus relates, though his narrative lacks confirmation, he passed onward to Jerusalem, and impressed with the sacred riles of the priesthood, distributed liberal gifts and endowed the city with privileges.

More probable is the story of his visit to the temple of Jupiter Ammon in the Libyan desert, where he was greeted not as the son of Philip but of Zeus. In Egypt he was welcomed as a deliverer, and founded there the metropolis which for more than twenty-two centuries has been one of the principal emporia for the commerce of the world.

Meanwhile to dispatches from Darius, tendering ransom for his family, offering to become his friend and ally, to share with him his kingdom, and to give him his daughter in marriage, he answered that he could not accept a part of an empire which was already his by right of conquest, and in future could treat with him only as a subject. As to his daughter, he would marry her or not as he chose, and that

without reference to her father's consent. No further correspondence passed between them, and the issue was determined by the sword. Believing that his former defeat was due solely to the nature of the ground, Darius drew up his multitudinous host in a spacious plain near the village of Gaugamela, not far from the banks of the Tigris. There at the dawn of an autumn morning the Macedonians, some 47,000 strong, came in sight of an army estimated at more than 1,000,000, better armed and equipped than at Issus, and drawn up with some degree of military skill. In the center was the king, it such we may call him, surrounded by his body-guard and chosen troops, in front of whom were the war-chariots and elephants, and on either flank a large body of Greek mercenaries. Yet so sure of victory was the Macedonian leader, that for the battle of the following day he was aroused from a deep and peaceful slumber. Nor was he disappointed. While the resistance was somewhat stouter than at Issus, it ended as before in a total rout, Darius again betaking himself to flight while the result was still undecided. In the town of Arbela, whence the battle was wrongly named, for it was a score of miles away, was captured the treasure there deposited, to the amount of several thousand talents.

With the battle of Gaugamela ended the two centuries' struggle between Greece and Persia. The rich empire of the latter now lay at the conquerors feet, and unto him were opened without opposition the gates of its ancient capitals. As he entered Babylon at the head of his army, the priests sang hymns of praise as though in worship of a god; the streets were strewn with flowers, and incense was burned on altars of gold and silver. Nor in the rejoicings which followed was there anything of simulation; for under Persian rule the Babylonians had been persecuted and despised, their religion suppressed and their sanctuaries destroyed. Far otherwise was their treatment by Alexander, who as a pupil of Aristotle shared in the liberal views of the great master of civil polity. He repaired their temples, especially that of Belus, which lay in ruins, and to Bel he did sacrifice in person. The property of individuals was respected and their persons protected, the sums distributed among his troops being taken from the royal storehouse. At Susa had already been secured by one of his lieutenant's treasures t o the amount of $60,000,000, among them much of the spoils which Xerxes had carried away from Greece. But greatest of all were the riches which he gathered at Persepolis, valued at $150,000,000, or sufficient to load several thousand beasts of burden.

Here we need not follow Alexander in his expedition to India, where after many privations and much hard campaigning, with the loss of more than half their number, his troops, on reaching the bank of the Hyphasis, refused to follow him further. Many settlements he founded on his route and peopled with Greek colonists, thus forming military posts and entrepôts of commerce, some of them, as Heart, Cabul, and Kandahar, became important centers. In the spring of 324 we find him again in Babylon, where envoys from every quarter of the world saluted him as the conqueror of Asia. There he planned new expeditions and completed his arrangements for others already in part accomplished. After voyaging along the Persian Gulf, Nearchus, his admiral-in-chief, had ascended the Euphrates and arrived at Susa with all his fleet. Other vessels constructed in Phoenicia, had been brought overland and by river to Babylon, where a great harbor was in process of construction. A flotilla was to be built for the exploration of the Caspian Sea, and Nearchus was to circumnavigate the peninsula of Arabia; for Alexander was preparing to conquer this country, after which he would conquer the world. These preparations were almost completed, and the time for departure was near at hand. But first must be celebrated the obsequies of his friend Hephaestion, and with the banquetings and carousals which common on such occasions throughout the ancient world, were exaggerated by the Macedonians into a prolonged debauch. One night Alexander passed in drinking, and the next day in sleeping off its

effects. On the following night the orgies lasted until dawn; but when next he woke, the great conqueror found himself as helpless as a child; for fever held him in its grasp, and retained its hold until its victim, though still directing the preparations for the campaign, lost power of speech or motion. Thus at the age of thirty-two he passed away, declaring when asked to name his successor that he left his kingdom to the strongest.

By Niebuhr Alexander has been branded as an adventurer; but this title he deserved no more than did other great conquerors; nor can he be classed among such scourges of mankind as were Alaric, Genseric, and Attilla, Timur and Genghis Khan. His original, or at least his avowed purpose in invading Persia was to avenge the wrongs inflicted on Greece by Darius the elder, by Xerxes and Cyrus; but with victory came the lust of power, fostered by the belief in his superhuman origin. That the schemes of conquest which lasted as long as life itself would have been at least partially realized, there is little reason to doubt, unless, as seemed not improbable, his mind should lose its balance, or his splendid ability be clouded by degrading habits. During his reign Asia had been helenized and Asian arts and customs introduced into Hellas; a continent had and new forms of human and animal life, been explored, its resources laid open discovered. Had he lived, he might have brought other countries under Grecian influence, establishing a vast and centralized empire which would have welded in close communion the leading nations of the earth. His conquests completed and consolidated under a master hand and instead, this empire might have endured for ages, of the iron despotism of Rome, the world might have submitted not unwillingly to the gentler sway of Greece. His career was not all one of conquest; for as we have seen he founded many cities, and gave himself to the development of commerce and the prosecution of public works, on which he expended much of the treasure accumulated by the last of the Persian kings. For himself he loved not money, and spoke but the truth when he declared to his mutinous troops that of all the rich fruits of his campaigns he had reserved only the diadem as his reward. If his vices were many; if such deeds as the torture of Philotas and the slaying of Clitus must be regarded with horror and disgust, there was much, apart from military genius, to shed luster on the name of one whom the world has agreed to call great.

After the death of Alexander, the political history of Greece until the time of her conquest by the Romans is of minor significance, her achievements no longer influencing the destinies of the human race. Some few episodes there were, as the revolutions of Agis and Cleomenes in Laconia; but these were not followed by important results. Beginning with the close of the third century before Christ, it may be said that the Greeks were thenceforth famous rather as individuals than as a people, many among them being held in esteem as philosophers, artists, or men of science and letters. Their achievements and sayings were still valued throughout the civilized world, but as communities, says Grote, "they lost their orbits and become the satellites of more powerful neighbors.”

During the interval between the death of Alexander and the subjugation of the Greeks by the Romans, the annals of the former are somewhat bare of interest. Except Sparta, nearly all the Hellenic states fell under the power of some neighboring potentate, though the Achaean league, a combination of the various commonwealths for mutual self-protection, revived for a time their decaying energies and threw luster over their decline. From this Lacedaemon held aloof; for the city was ruled by a wealthy oligarchy opposed to the reforms of Agis and Cleomenes, the former of whom they put to death, while at the instigation of the latter the Macedonians invaded Laconia, and at Sellasia inflicted on Sparta a crushing blow. A few years later the monarchy of Philip V of Macedon was shattered by the Romans at

Cynoscephaae, the conquest of Macedonia and Hellas being completed by the defeat of his son at Pydna, followed in 146 by the capture and burning of Corinth.

Of what may be termed Roman vandalism, there is no more striking example than the pillage and destruction of this wealthy and time-honored city of the isthmus, rich in the accumulated treasures of Hellenic science and art.

Situated on the ledge of a precipitous rock, nearly 2,000 feet high, on the summit of which stood the Acrocorinthus or citadel, Corinth was connected by walls with its port of Lechaeum, frequented by Phoenician navigators in prehistoric ages. Homer speaking of Korinthos as a thriving and populous center, while long before the days of Homer it was known as Ephyre. When Athens was still little more than a village the ingenuity and enterprise of the Corinthians had multiplied their commerce and resources by a series of inventions and appliances which were the wonder of the ancient world. There the first trireme was built, and there was a device corresponding to the modern ship railroad, vessels being dragged across the isthmus to the sea beyond, thus avoiding the dangers of a voyage around the Peloponnese. Corinthian architecture served as a model for Hellas, and it was not until a later period that its classic simplicity degenerated into the florid and ornate. Corinthian vases and pottery were decorated in beautiful designs, and painting, if not introduced by Corinth, received many improvements from such artists as Cleanthes and Aridices. Her bronzes, coffers, and articles of furniture were known to all countries bordering on the Aegean and Adriatic, the cedar chest of Cypselus, inlaid with innumerable figures in ivory and gold, being described by Pausanias as a miracle of artistic workmanship. Her colonies were numerous and powerful, among them being Syracuse and Corcyra, with the Achaian, Locrian, and Phocian towns on either side of the gulf, and some of the most flourishing settlements in southern Italy. Long the rival of Athens, she finally submitted, as did Athens, to the Macedonian yoke, though as the head of the Achaean league a central figure in the departing glories of Hellas.

Such was the city which the consul Mummius despoiled and razed to the ground, putting to the sword or selling into slavery all who had not made their escape after the final overthrow of the Achaean army. The spoils were enormous, and after many shiploads had been sent to Rome, after much had been sold or given away and more had been wantonly destroyed, there were buried sufficient to form a rich quarry of treasures for the benefit of future ages. Of their value Mummius knew nothing, for he belonged to the primitive Romans of Cato's time, and had all their rusticity of training manners, and tastes; so that we may well believe the story as to his contract with those who were to transfer to Roman temples these priceless gems of art—that if lost or damaged they were to be replaced by others of equal value. Attalus, king of Pergamus, knew better their worth, offering, as Pliny and Strabo relate, 600,000 sesterces for a single painting by Aristides of Thebes. As stated by Polybius, who was an eyewitness of the scene, no respect was shown for the most sacred offerings of Corinthian fanes, statuary and pictures being thrown on the ground where for Roman soldiers played dice upon them. The most valuable could be had almost for the asking. Lucullus, for instance, receiving some of the choicest sculptures for his temple of Good Fortune as a loan, but never returned; for Mummius would not even deign to take them away, though requested to do so when he chose. Of the painted vases of the Corinthians many specimens have been preserved; of their bronzes not a single piece remains; but, says Florus, "Corinthian brass was highly esteemed, since images and statues being melted together in the fire, veins of brass gold and silver ran together in a single mass." In the time of Julius Caesar the city was rebuilt by Greek and Roman freedmen, who gathered the buried spoils, even to the

sepulchral ornaments which alone had escaped the desecration of Mummius; but between the Corinth of the classic and of the Roman age there was nothing in common except its site while, today it is one of the smallest and poorest of Hellenic towns.

The Greeks were the first to establish colonies in the proper sense of the word, their settlements extending over the shores and islands of the Mediterranean, and increasing so rapidly in resources that not a few became themselves the founders of colonies, engaging in friendly or hostile rivalry with the mother country.

While the origin of many was due to civil dissensions or surplus population, all claimed to be citizens of Hellas no less than those whose abodes were at Athens or Corinth, the word apoikos, or colonist, meaning simply one who is away from home. Such enterprises were undertaken with the consent of the community, under the management of its leaders, and with the sanction of the oracles and of local deities. If no longer subject to the control of the parent city, they treated her with respect, and for one to make war on the other was considered a violation of sacred ties, though such bonds were easily severed at the dictates of jealousy or ambition.

The first care of the settlers, after making choice of their adopted land, was to build for themselves a city, usually on the sea-coast and in the neighborhood of a hill which might serve as an acropolis. Then were erected all the public buildings essential to the religious, social, and political life of the Greeks,—the temples of their tutelary gods, an agora for public meetings, a gymnasium for the training of the young, and as soon as means would permit, a theater. Colonies, it has often been remarked, favor the growth of democracy; for traditionary ceremonies and usages cannot long be preserved in a community whose members have confronted the same hardships, dangers, and difficulties. And especially was this true of the Hellenic colonies, where aristocracy found no permanent foothold, and where democratic institutions were established earlier than in Hellas itself. Thus, favored as they were by political independence and by their advantages of commercial position, many developed into centers of wealth and population far exceeding those on the mainland or Peloponnese.

As to the earlier Doric, Aeolic, and Ionian colonies, founded on the coast of Asia Minor and on the islands between it and Hellas, their origin belongs to the mythical age, though as to some, and especially the Spartan colonies in Crete, there are a few authentic records. The lonians were the foremost of colonizers, their settlements ranking above the rest in commercial enterprise; so that in the seventh century Miletus, their principal city, had become the commercial metropolis of the Greeks, planting also a large number of colonies, of which Cyzicus on the Propontis and Sinope on the Euxine became the most prominent. Ephesus, of whose temple I shall speak later, owed her prosperity to a large interior trade. By the lonians of Phocœa was founded the city of Massalia, or Marseilles, with other ports on the coast of Gaul and Spain. In Sicily was a group of Ionic communities, and in Italy Cumae, founded, as tradition relates, more than a thousand years before the Christian era, was also an Ionian settlement.

But in Sicily and Italy the most flourishing colonies were not of Ionian origin. Syracuse, the ancient capital of the former, founded by the Corinthians in 734, contained at one time half a million of inhabitants within its twenty-two miles of circuit. Agrigentum, whose foundations were laid by the Dorians in 772, became the wonder of the world for the grandeur of its public buildings; so that it was termed by Pindar "the fairest of mortal cities.” Sybaris and Croton, built by the Achaeans about half a

century later, were the wealthiest of Italian settlements until the war between them ended in the destruction of the former. The opulence and luxury of the Sybarites has caused their name to pass into a proverb, five thousand knights, it is said, arrayed in magnificent attire, passing in procession on festal days. Tarentum, a Spanish colony, succeeded Sybaris as a center of wealth and power, her harbor, one of the best in Italy, contributing to her prosperity as a commercial port. Locri and Rhegium were the principal settlements in southern Italy, and on the western coast the ruins of Posidoma, or Paestum, a daughter of Sybaris, attest its former greatness. On the northern shore of Africa, Cyrene became a leading mart of trade, with several offshoots, of which Barca was the most important; but the jealousy of Carthage prevented Greek colonization from spreading far in this direction. In Epirus, Macedonia, and Thrace colonies were also numerous and powerful, extending along the shores of the Ionian and Aegean seas, of the Hellespont, Propontis, and Euxine, as far northward as the mouth of the Danube. Corcyra, the offspring of Corinth, presently became her rival, not only for commercial but for naval supremacy, a war between them in 664 including the first naval action that history records, while their later dissensions were among the leading causes of the Peloponnesian war. Byzantium, originally founded by the Megarians and destroyed by the Persians was colonized by Pausanias after his victory at Platae. Thus it will be seen that in the art of colonization, as in other arts, whether of peace or war, the world owes much to the Greeks, whose methods the experience of more than two thousand years has in some respects failed to improve.

For several centuries after the destruction of Corinth, the history of Greece is merely that of a Roman province, though most of her institutions were retained, and there was little interference with the property and rights of citizens. In this instance the harshness of Roman despotism was modified; the leading states were treated as allies; the people felt not their subjection, and for a time had little reason to regret the change. But while taxes were not increased they were no longer expended on public improvements, but for the maintenance of Roman armies and the embellishment of the Roman capital. Thus the drain began to be felt, though not at first; for the conquests of Alexander had transferred to the Greeks the accumulated treasures of the Persian Empire, and Greece was never so wealthy as during the last years of her existence as an independent nation. At a later period the direct burden of taxation was as nothing compared with the extortions of those to whom taxes were farmed or sublet, special tribunals being created for the enforcement of their claims, while usurers followed in their wake, rapidly absorbing the possessions of landed proprietors. Then there were the privileges and monopolies granted to Roman colonists, and the large amounts required for the establishment of Roman governors. Finally came the proconsuls, who plundered their provinces, and from whose oppression there was no redress; for they were responsible only to the senate by whom they were appointed and of which they were members, thus insuring a decision in their favor.

When Mithridates made war against the Romans in Asia Minor, many of the Hellenic states declared for the former, hoping to regain their independence. But the appearance of Sulla and his army quickly undeceived them. Athens, which alone refused to submit, was taken by storm after a stubborn resistance, followed by massacre and pillage, the destruction of the Piraeus, and the plunder and desecration of the Delphic and other shrines. It was during this war that Verres, whose trial, conducted by Cicero, was one of the most memorable in forensic annals returned to Rome laden with the spoils of the Sicilian Greeks, whose estates he ruined by exorbitant imposts, and whose cities and temples he stripped of their works of art. In the reign of Augustus and his successors a better state of affairs prevailed, and by Hadrian, who in tastes and sympathies was himself a Greek, many splendid

structures were erected, and many works of public utility improved the condition of the people. Yet from seven millions, when Hellas became a Roman province, her population had been reduced to little more than three millions; for with the standard of prices established under the empire none but the rich and their dependents could afford to live there, the poorer classes seeking their fortunes in Asiatic cities.

With the decadence of Rome, Greece in common with southern Europe was overrun by successive hordes of barbarians; first by the Goths and then by the Huns and Vandals, though Rome herself suffered more severely than any of her provinces. By Constantine was introduced into Greece the Roman municipal system, whereby each town, with its tributary district, was subject to a local senate elected from the landed proprietors. By this body all taxes were collected, and for their collection its members were held responsible even to the confiscation of their effects; so that to increase the revenue a caste system was later introduced; the social and industrial sphere of all classes was strictly regulated, and the son required to follow his lather's calling, while the rural population was bound to the soil and reduced to the condition of serfs. Hence came wide spread misery and discontent, further increased by the disarmament of the entire people; none but the military class, most of whom were foreigners, being permitted to carry arms. By Justinian the fetters of Greece were yet more strongly riveted, and the burden of taxation became intolerable; here as elsewhere, he cared not how his subjects were impoverished, so that foreign conquests shed a false luster on his name.

But from the Byzantine and post-Byzantine eras we may pass in the briefest of phrase to modern Greece; for between the fall of Constantinople and the opening of the nineteenth century, her people are barely mentioned in history, except when butchered or carried into captivity. Whether Turks or Venetians, Austrians or Russians held sway in Hellas, mattered little to her people; for all were alike her oppressors.

The Ottomans in their march of conquest slew all the males in captured cities, and reserved the women for harems and slave markets while the western Christians were scarcely less cruel and barbarous. The Venetians punished the Greeks for refusing to acknowledge the pope, and for submitting to the Turks, while the Turks punished them for submitting to the Venetians and later to the Russians, whose brief and partial domination offered no hope of relief. Moreover, the seas were infested with pirates, who had no regard for human life, except so far as human beings might serve as commodities for sale. The population emigrated by thousands, and among them nearly all the learned and wealthy sought refuge from Turkish misrule. In a word the Greeks, while surviving as a people, had ceased to exist as a nation, their condition resembling somewhat that of the Jews who were scattered among all the countries of the earth.

Yet once their conquest was completed the Turks troubled themselves but little about the civil government of Greece. So long as their revenues were promptly paid, and there were plenty of shapely women to fill their harems, they cared not how the people raised their quota of tribute, or how they managed their affairs. Many of the Greeks who professed the Mohammedan faith had been promoted to high command, while for those who remained Christians there was no hope of bettering their condition. Hence the spread of Islamism, which found many converts also in adjacent countries; so that the sultans, alarmed at the decrease in their tribute-paying subjects, treated the Christians with more indulgence. Of the Caramuratades, a Christian community in Albania, it is related that in the sharpness of their distress they cast about them for a remedy, thinking that their faith should have

delivered them from oppression, if in faith there was any saving efficacy. Yet they would give it another trial, hoping to conciliate the deity by fasting and supplication. But the lenten season, observed with rigorous severity, brought no improvement in their lot, and on Easter day they dismissed their priests and went over in a body to Islam.

Nevertheless the Greeks and Turks could never assimilate as a nation. The number of the former who accepted Mohammedanism, though not inconsiderable, was only a small proportion of the whole, while between the social customs of Greek and Ottoman there was nothing in common. By one of the sultans it was even proposed to exterminate the entire Christian population, and this might have been attempted but for the attendant loss of revenue. If they could not be converted, they served none the less as drudges for their masters, cultivating their lands and paving the taxes from which the latter were exempt. This was at least better than extermination, and it remained only to exact in labor and tribute all that their bondsmen would bear. So low had fallen in the seventeenth century the Greece of Solon and Pericles!

But there were redeeming influences at work, and first of all the influence of the Greek church, which served more than all else to keep the people together, and to preserve their nationality from extinction. While many of the bishops and patriarchs played a double part, and were neither true to their countrymen nor to the sultan; while many were only self-seeking, and not a few guilty of simony, there were others who shrank later Greek coins at no sacrifice, and the lower orders, maintaining themselves by some form of handicraft, worked in the main for good. The close of the eighteenth and the opening years of the nineteenth century were marked by the spread of culture and education, and by a rekindling of national sentiment. The French revolution had made men ashamed that as the descendants of the greatest nation of antiquity they should be held in subjection by alien and barbarian hordes. These and other causes were preparing the Greeks for their struggle for liberty, which beginning in 1821, simultaneously with the acquisition of Mexican independence, after many conflicts, internal dissentions, and European intermeddlings, culminated in 1832 in the crowning of Otto of Bavaria as king of Greece. Throughout the entire war the Greeks fought bravely, and especially at Mesolonghi, where, after a twelve months' siege, men and women who had fought together shared the sad fate which aroused the sympathies of Europe. Thus if at times they were savage and brutal in their treatment of the Turks, it is not greatly to be wondered at, for it was not to be expected that they would deal gently with those who for centuries had massacred or enslaved their countrymen.

Otto of Bavaria was not the man to rule over independent Hellas, now recognized as such by her protecting powers, England, France, and Russia.

At a despotic court he had received a despot’s training, and knew no other form of government than despotism in its milder form. Moreover, he brought with him a number of his countrymen, on whom all important offices were bestowed, to the exclusion of the Greeks, who began to look upon their liberty as merely a change of masters. Nor were matters mended by the revolution of 1843. Otto, though dismissing his Bavarians, failing to establish as he had promised a responsible ministry and a representative assembly. In 1862 a second revolution drove him from the country; whereupon, eager for a constitutional monarchy, the people elected in the person of Prince Alfred, a stripling scion of British royalty, with only 7,000 dissentient votes out of a total of 471,000. But among the protecting powers it had been agreed that no one related to their reigning families should become king of Greece, and thus for a time the throne of time-honored Hellas was going a-begging for an occupant. Finally

England, after several refusals to nominate a ruler, selected Wilhelm, the second son of the king of Denmark, and in June 1863, under the title of Georgios I king of the Hellenes, as they still called themselves. Wilhelm began his reign.

Except for a dispute as to constitutional procedure, and the persistent efforts of the Greeks to extend their boundaries, though always repressed by the protecting powers, the administration of Georgios has in the main been peaceful and acceptable. England added to his kingdom the Ionian Islands, and under treaty of June 1881 were surrendered by Turkey most of her possessions in Thessaly and Epirus. By the provisions of the constitution all legislative functions were vested in a single chamber, still named the boule as in Homers time, representatives elected by manhood suffrage serving a three years' term and enacting measures only by an absolute majority of all the members. The public revenue and expenditure are about evenly balanced, the former nearly doubling since 1885, and the latter showing a considerable decrease. With a population of less than 2,500,000 in 1894, the total indebtedness amounted to $165,000,000 or $66 per capita, of which however a portion was represented in public improvements, among them a canal across the isthmus of Corinth, opened for traffic in the preceding year.

While of the population of Greece nearly one-half are farmers agriculture is still in a most backward condition, the farming implements of many districts differing but little from those which were in use in the days of Homer and Hesiod.

As a rule the fields are merely scratched by a plough, which the peasant carries on his shoulders and works with oxen, for the small Thessalian horses commonly in use are not fitted for the purpose. Rotation of crops is almost unknown, as also are drainage and the use of fertilizing substances though irrigation is well understood. Few of the farms are enclosed; the crops are raised in patches, and for dwellings there are huts of adobe or wood, in which is neither window nor chimney, but always a picture of the virgin. Under Turkish rule the resident proprietary was small and poor, the sultan owning two-thirds of the land which after the revolution, became national property and was offered at reasonable terms. Hence the great increase in the number of small freeholders, of which there are probably not less than 30,000, though few are large employers of labor, the harvests being mainly gathered by Albanians, who work in gangs at wages which the Greek laborer will not accept. The latter must also observe his feast days and holidays, of which there are several every month in the year, thus largely diminishing the amount of labor accomplished and of wages earned. Yet there are few paupers in Greece; few that is who are absolutely destitute; and of all European countries this is about the only one in which beggars are rare.

Of cereals an average yield may be stated at 20,000,000 bushels from 1,200,000 acres of land, imports to the amount of $5,000,000 being required to meet the local consumption. Vineyards are plentiful, the vintage for 1894 exceeding 70,000,000 gallons, and of a quality that found favor in foreign markets. Of currants the yield is enormous, the crop for 1894 being estimated at 360,000,000 pounds, and for many years furnishing more than half the total of export values. But the currant is in fact a small variety of grape, which is cultivated in certain portions of the Morea and of the Ionian Islands, and so far as is known thrives nowhere else in the world. Most of the crop is shipped to England, to be used for the plum puddings without which no Christmas dinner is regarded as complete. The fig and the olive oil of Attica still maintain the reputation which they enjoyed in the days of Pericles; and among other fruits are the orange, lemon, citron, apricot, and pomegranate. In

the south of the Morea sericulture is a favorite industry; cotton and tobacco are favored by exemption from imposts, and rice is grown on the historic plains of Argos and Marathon. Of honey there is a moderate yield; but the honey of Hymettus is no longer famous as in classic days, when it served as a substitute for sugar, then unknown to the world. With live-stock the country is fairly supplied, and especially with sheep and goats; for the milk of cows is considered unwholesome, that of ewes and goats being used not only as a beverage but for the making of butter and cheese. Manufactures are increasing, but as yet of no great volume. Iron, lead, zinc, and other ores are largely worked or exported for reduction; and still the marble quarries of Paros and Pentelicus produce as abundantly as when furnisoing materials for Athenian temples.

The commerce of Greece has developed rapidly since with the acquisition of independence restrictions and monopolies were removed. From a few million dollars in 1863, when Georgios was crowned as king, exports and imports had increased to nearly $50,000,000 in 1894. Much of the traffic is with Great Britain, amounting to some 40 percent of the whole; but the Greeks are among the shrewdest and most enterprising of traders, and there are few European countries to which their transactions do not extend.

Miscellany

As with worship, so with wealth, in prehistoric times its history is a myth, The hills of Hellas furnished ship timber, and in boats men sailed from promontory to island finding veins of metal copper gold and silver.

The gods by their guidance, like Polycrates by his piracy, protected commerce and became wealthy. If the adventure proved fortunate the sanctuaries were not forgotten, and no true trader sailed past Delos without remembering Apollo.

Polycrates made of piracy a business, and heaped upon Samos the fruits of his craft and enterprise. To ensure safety every ship that made a voyage must buy protection from Polycrates, and every defenseless coast and island must pay him tribute; so that from a piratical camp Samos became a piratical state, with all the lesser pirates as subjects. Material was brought in from every quarter, gold diamonds and marbles, and industries arose, and art learning and luxury followed.

Unearthed at Mycenae were some of the heroes of the Trojan war, sepulchered supposedly BC 1183—Agamemnon, of gigantic size, resting amid his heaps of treasures, the face covered with a golden mask, breast plates of gold, helmet on the head and a golden diadem covering the brow, with hundreds of golden buttons, broken weapons, and thousands of various other objects.

In his Plutus, Aristophanes relates how one Chremylus, a poor but just man, consulted the oracle at Delphi as to whether or not he should instruct his son in knavery, injustice, and other arts whereby men gather wealth. He received no definite answer, but was told to follow the first man he should meet on leaving the temple. This chanced to be Plutus himself, whom Zeus had made blind that he might not distinguish between the just and the unjust. By the aid of Aescnlapius the god of wealth was restored to his sight, whereupon all the just were made rich and the unjust reduced to poverty.

The temple of Delphi probably contained more wealth than could be found elsewhere in all the Hellenic states, the Phoenicians carrying away from it 10,000 talents or nearly $12,000,000 in gold and silver. Yet there remained sufficient, not only of the precious metals but of brass and brazen ornaments, to satisfy the rapacity of successive plunderers. Its art treasures were among the richest in Greece, and even in the days of Pausanias, when the oracle had fallen into disrepute, there was still a very large collection of the choicest of classic paintings and sculptures.

As compared with the Phoenicians, the Romans, and with some modern nations, the Greeks were not a money-making or money-loving people. It is probable that there were not a dozen men in Athens worth more than the equivalent of $100,000, while half that sum was considered as riches and one-fourth of it as a handsome competence. Demosthenes the orator, whose father left him nearly $20,000, was said to have been born to wealth, and even when robbed of most of his patrimony, so that there was left to him only some $250 or $300 a year, he lived very comfortably on his income. Nicias, in his time the richest of the Greeks, had a revenue of about $20,000, mainly derived from the mines of Laurium. The father of Democritus, one of the founders of the Atomic school, was rich enough to entertain Xerxes and his host on their homeward march from Salanus. Pelopidas, the hero of the Sacred Band, succeeded to a very large property, further increased by marriage, and this he devoted largely to the relief of the poor. So it was with other wealthy Greeks, who while not despising

money, preferred to use it for the public good, never hoarding it and seldom using it for the gratification of vicious tastes.

Of Alknaeon it is related that alter slaving his mother, by command of his father and under the sanction of the Delphic oracle, he was pursued by one of the Erinyes, who chased him from place to place without any interval of repose until his reason became unsettled. Claiming the protection of Apollo, he was ordered to place as a votive offering in his temple the necklace which Hephaestus made for Harmonia, wife of Cadmus and daughter of the gods. This was among the plunder which the Phocaeans captured at Delphi, their women quarrelling fiercely over the division of such spoils.

In the British museum is an Elean silver coin, on which is stamped the head of the Olympian Zeus, in such strong and beautiful workmanship that it is believed to have been taken from the famous statue of Phidias. Phidias, it may here be said, was one of the few artists who became rich, and this perhaps not altogether by honest means; for as Plutarch relates he was charged by one of his assistants with stealing a portion of the gold entrusted to him for the chryselephantine statue of Athena. He was acquitted, however, and certain it is that he did not want for orders wherewith to make his fortune. His first large order was for the monumental group at Delphi, to be paid for out of the booty secured in the war with Persia. Among other of his works not mentioned in the text was a colossal figure of Athena executed for a Plataean temple, the body of the statue covered with plates of gold, and the face, hands, and feet of Pentelic marble. Chiefly in gold and ivory were fashioned the masterpieces which brought him wealth and fame.

By Aristagoras governor of Miletus was brought to Sparta early in the sixth century, a tablet of bronze on which were engraved the outlines of the earth, its seas and rivers. This was the first recorded attempt at geographical delineation, and, though rough and imperfect, served to convey a fair idea of the principal countries of the world as then it was known.

In an octagonal tower built by Andronicus Cyrrhestes is a water-clock, on the eight faces of which are inscribed in marble the names and allegorical figures of the winds, each facing the quarter whence it blows. Beneath them lines traced on the wall indicated by their shadow the hour of day; and on the summit a triton's wand, held by a figure of bronze and revolving on an axis, rested over the image of the wind which happened to be blowing at the time.

When Solon increased the value of the mina from 73 to 100 drachmas, certain of his friends, receiving a hint as to the intended change, borrowed large sums of money wherewith to purchase estates on the former basis. The great lawgiver was himself a loser by his own measure, having five talents or nearly $6,000 invested in mortgages—a large sum in those days for a struggling Athenian merchant. When Solon visited Sardis, Herodotus says that Croesus took him to his house and showed him all his treasures, and then asked him "Whom thinkest thou the happiest man in all the world?" "Tellus", replied Solon, "who died for his" country." "And the next happiest?" continued Croesus, hoping he would name the wealthy king of Lydia. But Solon said Cleobis and Biton, because being dutiful the gods loved them and took them early hence. Then was Croesus wroth; but Solon said, "Who can tell what man is happy until he be dead not knowing, what his last days may bring forth?" The story is well enough told, and might have been true but for the fact that Croesus did not succeed to the throne until several years after Solon had ended his travels.

"Why is it?" asked Xerxes at Thermopylae, "that the Greeks have sent so slender a force against me?" They were celebrating the Olympic games, he was told, and until these were over they troubled themselves little about him or his host. Meanwhile the 300 Spartans and their allies would hold the pass against him.

As one of the victors of Salamis Themistocles received no honors from his countrymen; but visiting Sparta he was presented with a crown of olive the usual reward of the conqueror. One of the finest chariots the city could furnish was sent him as a gift, and on his departure he was escorted by 300 knights selected from the ranks of the Spartan cavalry. That each of the commanders at Salamis claimed the victory as his own appears from the vote taken on the altar of Poseidon, where they were required to leave a tablet inscribed with the names of those whom they deemed en titled to the first and second prizes. All claimed the first prize for themselves, Themistocles receiving a majority of votes for the Second prize.

Plutarch relates that among the spoils taken by Alexander the Great was a golden casket of curious workmanship. Alexander inquired of his friends what they thought most worthy to be placed in it as a memorial. Many things were suggested, but, said the conqueror, "The one that most deserves such an honor is the Iliad."

The mines of Laurium, near Athens, were worked at a period so remote that no record remains as to when or by whom they were first developed. Coins made from the silver of these mines circulated throughout the civilized world, and it was mainly through their product that Athens was enabled to build and maintain the fleets with which she secured the naval supremacy of Greece. They were worked by individuals, who paid a certain sum in cash and a yearly rental varying with the output. The yield appears to have fluctuated largely and was probably most abundant at the time when the Athenians needed every drachma they could lay their hands upon; that is to say, during the Persian and Peloponnesian wars. At the time of his expedition against Syracuse, Nicias had 1,000 slaves at work in them; in Xenophon's time they were becoming exhausted, and by Pausanias they are mentioned only as a reminiscence of the past. Still are to be seen not a few of the shafts and tunnels sunk more than twenty-five centuries ago, while deposits of scoriae covering the path which leads to the sea-shore indicate the spot where silver ores were smelted. Within recent years these refuse heaps have been profitably worked by a French company, producing more lead and silver than were ever taken from the ores under the crude processes of the ancient Greeks.

About the year 1810 a report came to Veli Pasha, then governor of the Peloponnese, that much wealth lay hidden in the subterranean treasuries at Mycenae, where was the treasury of Atreus. The results of search were never fully made known.

"On the central rock of its Acropolis," writes one in 1840, "exist the remains, in a mutilated state, of three temples, the temple of Victory—Nike Apteros—the Parthenon, and the Erectheium. Of the Propylaea in the same place, at its western entrance, some walls and a few columns are still standing. Of the theater on the south side of the Acropolis, in which the dramas of Aeschylus Sophocles and Euripides were represented, some stone steps remain. Not a vestige survives of the courts in which Demosthenes pleaded. There is no trace of the Academic porches of Plato, or of the Lyceum of Aristotle. Only a few fragments of the Long Walls which ran along the plain, and united Athens with its harbors, are yet visible. Even nature herself appears to have undergone a change. The source of the

fountain Callirhoe has also vanished; the bed of the Ilissus is nearly dry; the harbor of the Piraeus is narrowed and made shallow by mud."

In 1894 the army of Greece on a peace footing was about 25,000 men, and on a war footing 100,000; besides which there was what is called a territorial army of 146,000 men. In the navy there were five armored cruisers or battleships, 30 torpedo boats, 12 gunboats, and a number of smaller craft. In the merchant marine were 125 steamers of 135,000 tons and 760 sailing vessels of 343,000 tons. Entrances and clearances are 12,000 to 15,000 vessels a year, more than half the shipping business being through the port of the Piraeus, and including much of the carrying trade of eastern Mediterranean and Black Sea ports. The first railway built was from Athens to the Piraeus, and carried passengers only, the distance being 7 1/2 miles. In 1894 there were about 600 miles in operation and 300 under construction, the Athens-Larissa railway being intended to communicate with European systems. Of telegraph lines there are more than 5,000 miles, and of wagon roads more than 2,000, the latter being greatly improved within recent years.

Section Three

Chapter the Seventh: Italy

Ergo sollicitae tu causa, pecunia, vitae es,
Per te immaturum mortis adimus iter,
Tu vitiis hominum crudelia pabula praebes;
—Propertius

Omnis enim res,
Virtus, fama decus, divina humanaque, pulehris
Diviriis parent.
—Horace

Creverunt et opes, et opum furiosa eupido;
Et cum possideant plurima, plura volunt.
—Orid

Non quare et unde; quid habeas tantum rogant.
—Senecea

Avaritia et luxuria. Quaepestes omnia magna imperia everterunt.
—Liey

Nam divitiae, nomen, opes vacuae consilio et Vivendi atque alils imperandi modo, dedecoris plenaesunt et insoletis superbiae; nec ulla deformior species est civitatis, quam illa in quā opulentissimi optima putatntur.
—Tacitus

Odii immortals! Non intelligent hominess, quam magnum vectigal sit partsimonia.
—Cicero

When the first Greek colonists arrived in southern Italy, they found there peoples to whom they gave the name of Oenotrians, and lapygians, or Messapians, both as it seems of Pelasgic or ancient Hellenic origin. It was probably to the territory of the former that the word Italia was first applied, its derivation being traced to the italoi, or oxen, for which that district was famous. Not until many centuries later was the term used to signify the entire peninsula. As colonies spread and prospered, the country south of the river Silarus became known as Magna Gnaeci; in the center were various tribes and nations, chief among whom were the Etruscans, Umbrians, Sabines, Latins, Volscians, Aequians, and Oscans, while to the north were the Gauls, Ligurians, and Venetians. Though all were in turn subdued or consolidated in the Roman Empire, it was not until the days of Augustus that Rome, which administered the affairs of the world, established at home such a territorial organization as was needed for administrative purposes.

From the Etruscans Rome adopted many of her earlier political institutions; for long before the founding of the eternal city, they were a powerful and civilized nation, skilled in the arts and sciences, especially in vase and mural painting, in the goldsmith's and jeweler's crafts, and in the fashioning of figured mirrors and other useful and ornamental articles in bronze and terra cotta. Among others were Caere, the granary of Etruria, with an abundance of gold and silver deposited in the Delphic treasury, and Pyrgi, the seaport from whose temple Dionysius the tyrant carried away plunder valued at 1,500 talents.

Whence the Etruscans came we know not, for their origin is lost in obscurity; but certain it is that they were a far more civilized race than the Latian, or Latin, tribes among whom the lachrymose hero of the Aeneid cast in his lot, and being slain in battle ascended to heaven, where, let us hope, he was not confronted with his queenly hostess of Cartilage, whom he seduced and deserted.

After various other traditions comes the founding of Rome, itself in part a tradition, as were the reigns of its earlier and probably of all its kings. Even the date of its founding is uncertain, though as given by Varro, the third year of the sixth Olympiad, or 753 BC, is also the one adopted by modern historians.

The age of Romulus, son of Mars and the mythic and eponym founder of Rome—a word meaning strength, and especially brute strength—was one of violence and lawlessness. After despoiling the robber bands of Latium and distributing the booty among his shepherd following, he builds the first wall of the eternal city, for the scorning of which his brother is slain; and not long after his rape of the Sabine women ascends to heaven in a thunderstorm, there to be worshipped as Quirinus, the Sabine name for Mars. Thence he sends word, as Livy relates, that the Romans are destined to become the wealthiest and most powerful nation in the world. Nomos, or law, is personified in his successor Numa, whose election points to a Sabine fusion and perhaps to a Sabine invasion. At this time the nation, if such it can be called, was divided into three tribes and thirty curiae, the former probably a clan division, and the latter consisting of associations bound together by civil duties and religious rites, with common hearth and hall, and with common priests and festivals.

During the reign of Tullus Hostilius, the destruction of Alba and the organization of its citizens as the basis of the plebs, largely increased the power of Rome. At the mouth of the Tiber is established the first Roman Colony, and the port of Ostia is built, together with salt works as a source of revenue to the state.

It is in the reign of Tarquinius Priscus that tradition begins to give way to history, great public works being undertaken in his reign, of which mention will presently be made. Tarquin was an Etruscan by birth, a man of wealth and influence, and as to the story of his life and reign many romantic incidents are related, which need not here detain us. Making war against the remnant of the Sabines and Latins he defeated both these ancient enemies of Rome, completing the conquest of Latium and returning with the spoils of many cities. In the triumph of with which he celebrated his victories was more of the glitter of wealth than had ever before been witnessed, the king appearing in a chariot drawn by four white horses and attired in a robe embroidered with flowers of gold. The story of Servius Tullius is also largely in the nature of a romance, except the public improvements and political reforms undertaken during his reign. Tullius was the Solon of the Romans, dividing the people into classes, with rights and privileges determined by property qualifications. In the first class were those whose possessions were valued at 100,000 ases, or $1,600, the amount decreasing until in the fifth or lowest class it was only 12,500 ases or about $200. Then there were the proletarii whose effects were so slender that they were exempt from tribute, paying only a poll-tax. Thus was wealth computed in Rome during the regal period, when the joint riches of the patrician order would not have furnished forth a single banquet for Nero or Caligula.

With the expulsion of Tarquin the Proud, the monarchy ends, and the republican era is inaugurated amid a general shrinkage of power and territory.

Rome, instead of ruling far and wide over Latium and Etruria, sinking into an almost insignificant state, surrounded with hostile and independent tribes. The wealth and splendor which characterized the rule of the Tarquins had been in striking contrast with the simplicity of the earlier kings. By Etruscan architects were erected monuments little inferior to those of the empire; on Rome were lavished by Etruscan lords all the riches and resources of their opulent and civilized nation, and through Etruscan ports her citizens were first brought into direct contact with the Greeks. In addition to the two sovereigns mentioned in Roman annals, it is probable that several Etruscan princes usurped or were elected to the throne, and of these the younger Tarquin was the last, ending his days at Cumae after thrice attempting in vain to recover his kingdom.

The history of the republican era consists almost entirely of the history of its wars, with which we are here but little concerned. The story of the capture of Veil by Camillus in 396 is probably a portion of a poetic legend resembling that of the Trojan war. The plunder, divided among the army, was very large, Camillus sending one-tenth of his share to the temple of Delphi in the shape of a golden bowl several talents in weight, and devoting the remainder to a splendid triumph which aroused the anger of the gods. There is probably more of truth in the sack and destruction of Rome by Brennus, and the ransom of its capitol for 100,000 pounds of gold. Nor can we accept the statement of Livy that, when the treasure was being weighed, Camillus appeared with his avenging host and put the Gauls to rout. Unfortunately for Roman pride, the coins which formed part of the ransom were extremely plentiful in Gaul for many a century afterward. The city was rebuilt within a single year, materials being furnished by the state, and each one allowed to build as he saw lit, on whatever spot he might select. In their dwellings there was neither beauty nor comfort; the streets were narrow and crooked, many of them crossed by open drains, and so not a few of them remained, with the added unsightliness of later artificers, until the great fire in the reign of Nero rendered them incapable of further deformity.

It was not until the middle of the third century, after further wars with the Gauls, the Etruscans, the Samnites, with other Italian tribes, and above all with Pyrrhus, that Rome became undisputed mistress of Italy, her authority acknowledged throughout the peninsula as the head of the Italian confederacy of states.

Except Hannibal, Pyrrhus was the most able leader that the Romans encountered, landing in Italy with 25,000 men and routing their legions in two engagements, mainly through the panic created by his elephants. But presently he was himself defeated, retiring on Tarentum, whose request for aid had been the pretext for his invasion, and thence to his home in Epirus. The final submission of Tarentum, one of the wealthiest of Graeco-Italian cities, was followed by a large acquisition of wealth, and thenceforth luxury began to appear among the Romans, but at first in minor degree. Not many years before a Roman senator had lost his seat because the censors showed, he possessed silver vessels ten pounds in weight; but now silver plate was plentiful on Roman tables; there were hired actors, dancers, and flute-players, and there were artists and works in art both Greek and Etruscan, 2,000 statues being carried to Rome from a single Etrurian town. With the influx of Pyrrhic and Tarentine spoils, the capital aside its village-like aspect; public buildings were on a grander scale; in the temples rich stores of treasure, and for the first time in the annals of the republic most of its citizens were comfortably housed and fed.

The first Punic war placed Rome in possession of Sicily after a severe and protracted struggle which completely emptied her treasury. It was during this war that the first regular fleet was built, 100 quinquiremes and 20 triremes being constructed within a few weeks after the timber had been cut from the wooded chain of the Apennines. The wreck of a Carthaginian quinquireme served as a model, and sailors and rowers were trained on scaffolds; for as yet there were no seafaring men among the people. But the Romans were unfortunate with their earlier armadas. After several brilliant victories, the first one was destroyed by storm; the second was defeated and most of it wrecked with great loss of treasure gathered from African cities. A third, built by the contributions of private citizens, was more successful, and in 241 its victory virtually ended the war, the Carthaginians paying as indemnity 2,300 talents.

A few years later Sardinia and Corsica were added to the Roman possessions, not without ineffectual protests from Carthage. Presently came the second of the Punic Wars, Hannibal crossing the Alps at the head of his slender force of 26,000 men, with which but for his delay at Capua, he would probably have realized the dream of his life—to lay waste with fire and sword the city against which he had sworn eternal vengeance. On the Ticino and the Trebia the Roman legions were defeated; at Thrasymene they were massacred, and the way seemed open to the conqueror who marching on Rome as was thought, bathed his horses' feet in the choicest vintages of Italy.

Then came the struggles with Philip V of Macedon and Antiochus III of Syria, the former succeeding in purchasing peace for 1,000 talents and the latter for 12,500, with surrender of fleet and territory. In vain did Perseus, son and successor of Philip, strive to rehabilitate the Macedonian Empire.

The Romans were intent on its destruction, and this they speedily accomplished, later reducing it to a province, while Perseus himself adorned the triumph of Aemilius Paulus, and ended his days in Italy where his son earned a scanty livelihood as a wood-turner.

A most ignoble use did Aemilius Paulus make of his victory at Pydna. Macedonia he plundered of its treasures, both in the precious metals and in art; the inhabitants he reduced to virtual slavery, forbidding them to fell timber for shipbuilding or to work their mines of gold and silver; yet exacting a heavy tribute from a people thus reduced to poverty and helplessness. Proceeding thence into Greece, he treated with equal severity those who had espoused the cause of Perseus and even of Pyrrhus a century before. The men of Epirus he ordered to deliver up all their silver and gold, under penalty of death, and this they did promptly enough, thinking to secure their safety. But at a given signal the cohorts fell upon them, and 15,000 Epirots were massacred or sold into slavery, while their towns to the number of seventy were blotted from the face of the earth. The spoils were enormous, and to them were added, not many years later, those which Mummius sent to Rome by shiploads after the sack of Corinth. The treasury was filled to overflowing, as were the pockets of those in charge of affairs, and to the spoliation of Macedonia and Greece was mainly due the enormous wealth of many citizens of the later republic, contrasting sharply with the sordid poverty of the poor; for in ancient Rome there was no middle class.

The simplicity of early days had now entirely disappeared, and with it the intense patriotism and strict integrity which marked the days of Brutus and his successors. Everything could be had for money, and there was no disgrace in crime or treachery so long as they yielded a profit, the corruption extending alike to senate and people, to the legions and their commanders. Especially was this apparent when Jugurtha, having murdered his rivals, usurped the throne of Numidia, bribing the Roman ambassadors, the Roman generals, and even the commissioners sent to investigate the charges preferred against him. The first Mithridatic war yielded 20,000 talents, most of which was appropriated by Sulla, after being wrung from the people at the point of the sword, completely exhausting the resources of the country. "From the days of Sulla," remarks Sallust. "Roman soldiers began to rob temples, and to confound things sacred and profane." In Greece he gathered enormous spoils, and returning to Rome, where his triumph was one of the most magnificent pageants of the times, issued his famous proscription, followed by the reign of terror, the wholesale massacres and confiscations with which his name has ever been associated. During his dictatorship Sulla held absolute power over the lives and fortunes of every Roman citizen, being virtually emperor rather than dictator. Resigning in 79, he retired to Puteoli, where he ended his days, one of the wealthiest and most infamous, though unquestionably one of the most talented men of his age.

It was during the campaigns of Sulla that Pompey first came into notice, rising rapidly in favor, for he was an able and ambitious leader. Elected consul in 70, after his wars in Africa and Spain, the games which he celebrated, lasting an entire fortnight, were the most splendid thus far witnessed in Rome, not even excepting those where Sulla exhibited one hundred African lions in the arena. After his consulship he rid the Mediterranean of the pirate hordes which for many years had there held control. In addition to more than a thousand vessels, manned with bold and experienced seamen and thoroughly armed and equipped, they had fortresses and warehouses in which to deposit their booty. Not content with robbing merchant vessels, they pillaged the coasts of Italy, plundering towns and farms and sacking the country villas of the wealthy, even within sight of Rome. By the tribunes, vessels troops and money without limit were placed at Pompey's command, and within a few weeks the freebooters were driven from the coasts of Spain and the Pillars of Hercules, from the shores of Italy and Sicily, far into the Cilician sea, where their fleet was exterminated. Submitting to the conqueror, they were treated with leniency; for most of them had been driven to piracy as the only

means of earning a livelihood, and many were settled on the public lands, where they became the best of colonists. This was one of the most brilliant of Pompey's exploits, and also one of the few that were entirely unselfish. From the third Mithridatic war and other Asiatic conquests he returned a few years later with additional spoils and tribute, including 6,000 talents from Mithridates himself. Vast sums were added to the public treasure; to every soldier who had fought in his legions were presented 4,500 sesterces, and at his own expense he erected the theater which bore his name, together with a temple to Minerva.

Marcus Licinius Crassus, surnamed the Rich, who with Pompey and Caius Julius Caesar formed the coalition known as the first triumvirate, was probably the wealthiest man in Rome, accumulating an enormous fortune by working silver mines and trafficking in slaves and real estate. Elected as Pompey's colleague in the consulship, he had striven to outbid him as a candidate for public favor, distributing corn in unlimited quantities and feasting the people at ten thousand tables. The triumvirs were all-powerful, doing exactly as they pleased, and dividing the empire among them for the better consummation of their desires.

Crassus selected Syria as his province, where as he thought he could gather at will the treasures of Asia. By way of a beginning he plundered the temple of Jerusalem of sacred vessels and ornaments valued at 2,000 talents; but invading Parthia, he was finally sated with gold; for being defeated and captured by Surena, molten gold was poured down his throat.

After the death of Marius Caesar was chosen as leader of his faction or rather, of its remnants; for most of them had fallen under the proscription of Sulla. He was a man of extravagant personal habits and still, more extravagant in providing for the entertainment of the people; so that when appointed praetor in 61 he found himself $5,000,000 in debt. Spain was his province; but he could not leave Rome without first settling with his creditors, and this he did with the aid of Crassus, though not until a charge of insolvency had been preferred against him. Returning from Spain with spoils sufficient to pay his debts and to indulge in further extravagances, he was elected to the consulship, enacting measures which pleased the people but of fended the senate, especially in his agrarian law, whereby lands in Campania and elsewhere were distributed among 20,000 needy citizens.

Caesar's campaigns in Gaul and Britain added more to the territorial possessions of Rome than to her glory or wealth; for they were undertaken against barbarians, whose lives were sacrificed by thousands, while on the survivors untold sufferings were inflicted. Yet when finally subdued the Gallic tribes were kindly treated and lived contentedly under the sway of the Romans, whose laws and civilization they were not slow to adopt. After the battle of Pharsalia, where Caesar secured all the treasures of Pompey's camp, he fell a victim to Cleopatra's fascinations, a weakness which almost cost him his life; for an outbreak occurring in Alexandria, he was besieged in his palace, and escaped only by swimming to a ship anchored off the neighboring shore, leaving behind him his purple robe, which the Alexandrians hung as a trophy in their temple. Returning to Rome as dictator, he celebrated a four days' triumph, among those who followed his car being Arsinoe, sister of Cleopatra, and Vercingetorix, prince of the Arverni, who for a time had caused his star to pale. Then came public feasting at the dictators expense, with liberal distributions of corn and money, followed by magnificent games such as never before had been held in Rome. After governing for less than two years the world which he had conquered, Caesar meets his fate at the hands of the republican nobles,

leaving the bulk of his vast treasures and estates to his adopted son and heir Octavius, the emperor Augustus that was to be, and the world opens under new developments.

In the contentions which followed the death of Julius, Mark Antony was for a time the central figure. As consul in 44 he had been Caesar's colleague, and he it was who by his offer of the crown only a month before had unconsciously hastened the tragedy of the Ides of March. After the battle of Pharsalia he ruled almost as a despot, making a new partition of the provinces and pretending that he did everything in accordance with Caesar's will. But presently Octavius returns to the capital, and though but nineteen years of age is hailed by the legions as successor to his granduncle, assuming the name of Caius Julius Caesar Octavianus. First he demands the treasure bequeathed him by will, together with that which was left as the people's inheritance, all of which had been entrusted to Antony's keeping. But Antony has already squandered most of it in dissipation or in the payment of his enormous debts, and is unwilling to part with the remainder. Though finally compelled to do so, it is not until after a serious breach with Octavian, healed for a time by the alliance known as the second triumvirate, in which Lepidus was the third party, though little better than a figurehead. The breach between Octavian and Antony was renewed by the Cleopatra episode, and widened into open rupture when the latter put away his wife Octavia in favor of the Egyptian concubine on whom he had lavished his treasures and provinces. In Rome he was held in contempt; for after his legions had narrowly escaped destruction at the hands of the Parthians, he celebrated a magnificent triumph at Alexandria for some petty victory over the Armenians, and then became merely the slave of his mistress, giving himself up to oriental luxury and excess. War was declared against him, and at Actium came the trial of strength, with the result that all the world knows, Octavian, after settling the affairs of the east, returning to Rome with enormous stores of treasure to be distributed among the legions and the body of the people, together with large donations of land. While celebrating a threefold triumph, he soothed the pride of the nobles by maintaining the outward forms of consular government, himself for the fifth time holding office as consul, to which he was first elected at the age of twenty. Though long before saluted by the legions as imperator, he is presently invested with that title by the senate, and the days of republican Rome are ended.

When securely established on the throne with the authority of tribune for life, to which, after the death of Lepidus, was added that of pontifex maximus. Octavian presently assumed his title of Augustus, a word applied to Roman temples and rites and to all that was held most sacred and venerable. His reign was devoted to improving the condition of the people, in the provinces as well as in the capital, constructing roads and bridges, reclaiming lands, and erecting public buildings, all attended with a liberal but judicious expenditure. It was for the metropolis that Augustus reserved his munificence, rearing the most imposing and costly monuments of the empire and in such number that, as he declared, "he found Rome a city of brick and left it one of marble." By Julius many of these works had been planned, and had he lived, would doubtless have been executed during his reign; for never before had public funds been so abundant. After presenting 20,000 sesterces to every soldier who had fought on his side in the civil war, with a liberal donation to Roman citizens and other large payments that need not here be specified, there remained in the national treasury 700,000,000 sesterces, and in his own 100,000,000, equivalent in all to $40,000,000, or ten times as much as had ever before been at the disposal of the republic. In addition to the spoils of conquered nations, the revenues had been largely increased by the taxes imposed on them, and by the forced loans, fines, and

penalties exacted from wealthy individuals, certain African capitalists, for instance, being mulcted in 100,000,000 sesterces merely for siding with the opposition senate.

All this with later additions, was now at the disposal of Augustus, to be applied to the great works and monuments of his time, in the description of which will here be included those of earlier and later eras.

During the regal and consular periods, there were few imposing structures in Rome, chief among them being the wall of Servius, the temple of Jupiter Capitolinus, the forum, the theatre of Pompey, the curia, and on the Appian way the dome of Caecilia Metella. To these may be added the aqueducts and the Cloaca Maxima, while the spacious and substantial roads converging on the capital from every portion of the empire, and of which not a few remain, were more remarkable than all the rest. "Three things." said Dionysius of Halicarnassus, "reveal the magnificence of Rome, her aqueducts, her roads, and her drains."

The principal roads, or viae stratae as they were termed, were constructed of blocks of basalt, carefully fitted together on beds resembling those which are used for mosaic pavements. Most famous of all was the Appia via, which Horace calls the regina viarum, or queen of roads, begun by the censor Appius Claudius, and later extended to Brundusium, with a total length of 350 miles. By Appius was also built the first of the great aqueducts which conducted to Rome the water of neighboring hills, the remainder, thirteen in number, being for the most part erected on triumphal arches, the ruins of which are among the most imposing in the Campagna. The largest of the aqueducts, begun by Caligula and completed by Claudius, after whom it was named, was 40 miles in length, and at such a level as to convey water to all the hills on which Rome was built. Its cost was 350,000,000 sesterces or $17,500,000, most of this amount being expended on the arches as the Romans knew but little of hydrostatics. The earliest of Roman bridges was the Pons Sublicius, so called from the subliciae or piles on which it was built.

It was a wooden drawbridge merely; for Rome was as yet by no means safe from attack, the Tiber being regarded as its strongest defense, and it was not until after the final overthrow of Hannibal put an end to all fear of invasion that the first stone bridge was erected—the Pons Lapidaeus or Pons Aemilius, the latter from the name of its founder. The Ponte Rotto now occupies its site, and still in use is the Pons Fabricius, a massive structure of tufa and peperino, faced with travertine, which about 60 BC first connected the city with the Insula Tiberina. Well preserved also are the Pons Cestius, spanning the river between the island and the Janiculan shore, and the Pons Aelius, now the Ponte Saint Angelo, which led from Hadrian's mausoleum to the Campus Martins.

By Servius Tullius were established the dimensions of Rome as they existed under the republic, the Viminal and Esquiline mounts being added to the five fortified hills which formed the inhabited portion, that is to say the Capitoline, Quirinal, Palatine, Aventine, and Coelian, thus completing what was termed the Sepimontium. Of all the remains of the regal period the most striking are those of what is commonly known as the wall of Servius, though portions of it belong to earlier and later dates. Starting from the Tiber, it extended in a straight line to the Capitoline and thence to the Quirinal and other hills, though not forming a complete circuit, for each of them had its own fortifications, which so far as possible were utilized for the work. It was built of tufa blocks, probably quarried on the spot, two Roman feet in thickness, and laid in alternate courses. The arched openings, the uses of which cannot be determined, were of harder material, with blocks of great length, beveled and set in mortar.

In front were an agger and a foss 100 feet wide and 30 in depth, the wall being strengthened with massive buttresses to resist the pressure of the earth. In the days of Augustus the agger was converted into a public walk, and the foss filled in and afterward built upon, while the main structure was used for the back walls of houses some of which, still in existence, display thereupon the painted stucco work of the time of Hadrian.

Still in existence are considerable portions of the great walls of Aurelian, some twelve miles in circumference and enclosing the fourteen thickly populated regions or districts into which the city and its suburbs were divided by Augustus. The work was undertaken as a protection against the assaults of German and Gothic hordes, when the legions were required for distant portions of the empire. By Probus the walls were completed and by Arcadius and Honorius strengthened by gate-towers, Theodoric, Belisarius, and later the supreme pontiff's restoring and preserving them throughout the Middle Ages. The circuit was broken by various buildings, and by the projection where was the Praetorian camp, of whose fortifications there are many remains, including one of its principal gates.

The tomb of Caecilia Metella "the stern round tower of other days," as Byron terms it, was nearly 100 feet in diameter, and yet of such massive construction that the internal chamber was of Roman tombs barely twenty feet in width, and especially those of circular form, there are many striking remains, especially those of Hadrian's mausoleum, now converted into the castle of St. Angelo, where were the marble columns and domed roof of an edifice 170 feet square at the base. Cremation was common with the Romans, and among wealthy families the ashes of the deceased or the sarcophagus which contained his corpse, of which latter that of the Scipios is a familiar example, were enclosed in buildings of imposing structure and elegant design.

The Forum Homanum, or Forum Magnum as it was afterward called to distinguish it from the fora of the empire, lay in the valley, or rather the swamp between the Capitoline and Palatine mounts. It was roughly built and of quadrangular shape, its longer sides being flanked by butchers and tradesmen's stalls, while on the northern face were the quarters of the silversmiths. Here, after the marshy ground had been drained by cloacae, was the favorite site for commercial transactions, for political gatherings, and for scenic and gladiatorial exhibitions, for which a central space was reserved, though later inconveniently crowded with statues and monuments. The forum was for centuries the meeting-place of the comitia tributa, or plebs, and on the comitium adjoining, a level space on which the curia fronted, was the rendezvous of the patricians or comitia curiata. In the curia, or senate-house, founded, as was the forum, and probably completed by Servius Tullius, were usually held the sessions of the senate until its destruction by fire in 52 BC. During this and later periods, however, these sessions were frequently held in one of the temples, but never in the aedes sacrae, or sacred edifices devoted exclusively to religious purposes. The curia was several times rebuilt; first by the son of Sulla, who named it after his gens the curia Cornelia; then by Augustus who styled it the Curia Julia; a third time by Domitian and finally by Diocletian. By one of the supreme pontiffs it was converted into the church of Saint Adriano, and by Alexander VII its bronze doors were used for the nave of the Lateran basilica.

First among the five imperial fora was that which Julius Caesar founded to commemorate the battle of Pharsalia. Together with its central fane of Venus Genitrix, it was completed by Augustus, and was one of the most costly of Roman structures; for it was built in a crowded quarter, and as Cicero relates, 100,000,000 sesterces, or $5,000,000, was paid for the site alone. Adjoining it was the forum

of Augustus, in which was a temple of Mars the avenger, erected in token of the vengeance inflicted on the assassins of his great-uncle. It was enclosed by a wall 100 feet in height, still the remains of which are among the most imposing ruins of ancient Rome, and still in existence are three of the marble Corinthian columns with their entablatures which formed a portion of the peristyle. Of the walls and arch of Vespasian's Forum Pacis, burned to the ground during the reign of Commodus and restored by Severus, there are also massive remains, and especially of the addition made by Maxentius in the shape of a circular structure fronting on the Sacra Via. The original building was probably used as a hall of records; and lure also was one of the finest Roman temples, in which was a large and valuable art collection, including statue by Phidias and Lysippus.

The forum of Nerva, usually called the Forum Palladium from its temple of Pallas, was lined with marble and adorned with rows of Corinthian pillars, on a remnant of whose entablature are represented in relief the industrial arts of which Minerva was the patron goddess. In the reign of Alexander Severus were grouped around it colossal statues of the emperors who had been deified, together with columns inscribed with their exploits. Largest among the imperia was that fora, and one of the finest in architectural design, on which were expended during the reign of Trajan seventeen years of time and an enormous sum of money. To make room for its site was cut away a large spur of hill that connected the Quirinal with the Capitoline mount. Its principal entrance was in the form of a triumphal arch, whose figures in relief were afterward used for the arch of Constantine, the sides of its peristyle and curved projections being lined with shops. Opposite are the column of Trajan, on which are represented his Dacian victories, and the remains of the Basilica Ulpia, with its handsome pavement of oriental marble where were two of the largest libraries in Rome. Finally there were, in addition to those already mentioned, the Forum Piscarium, Pistorium, and Olitorium; that is to say the fish, bread, and oil markets.

In Rome were many temples, and especially on the Capitoline hill, whose peaks, called the Capitolium and the Arx, with the valley that lay between, and in truth the entire mount, were crowded in the time of the empire with magnificent architectural and artistic monuments enriched with the spoils of the Hellenic world. Here was the triumphal arch in honor of Nero, with much statuary and other works of art. Here was the temple of Fides which Numa founded, and which, when rebuilt during the first of the Punic wars, was spacious enough for meetings of the senate, as also was the fane of Honos et Virtus, erected by Marius, that of Jupiter Tonans, reared by Augustus, being of smaller and more graceful dimensions.

By the first of the Tarquins was founded and by his son was built in the Etruscan style of architecture the vast triple edifice commonly known as the temple of Jupiter Capitolinus, though dedicated also, as were other Etruscan fanes, to Juno and Minerva. It was in the basement or rather in a subterraneous cell of this temple that the Sibylline books were preserved, of which we have the familiar story of the sibyl and the king, the latter paying 300 pieces of gold for the three remaining books, after the sibyl, at first turned away in scorn, had burned six out of the nine offered for the same amount. Though on its construction were expended the rich spoils of the Volscian war and the taxes and enforced labor of Roman citizens, it was but a plain and almost unsightly building, with facades of painted and stuccoed peperino, wooden architraves, and statues of terra cotta. Burned to the ground some four centuries later, it was replaced by an imposing structure of marble, with Corinthian columns from the Athenian temple of Olympian Jove, erected by Sulla, Catulus, and Augustus the name of Catulus only, by whom it was completed and dedicated, appearing above its portal. Not many years later it was demolished by

rioters and after being rebuilt by Vespasian was again destroyed during the reign of Titus, in the great conflagration of 79. This also is the date of the eruption which buried Herculaneum and Pompeii beneath the ashes and lava of Vesuvius, and it was while the emperor was viewing the scene of desolation and contributing generously to the relief of the distressed that the catastrophe occurred in Rome.

Finally, in the time of Domitian, the temple was once more rebuilt, and for centuries was acknowledged as one of the most striking of Roman monuments. Its peristyle, form of a double colonnade was of Pentelic marble, and on the gilding alone was expended, as Plutarch relates, $12,500,000, the gilt bronze tiles forming a portion of the spoils which fell to Genseric the Visigoth.

Another great temple was the one which Camillus erected on the Arx in honor of Juno Moneta, or Juno the Adviser. It was afterward converted into a mint, and hence it was as Livy opines, that the word moneta was used to signify money. On its site now stands the church of Ara Coeli, and on that of the fane of Jupiter Capitolinus, the Palazzo Cafarelli.

Elsewhere in Rome were numerous temples erected at various dates, though such as belong to the earlier period, as those of Janus and Vesta, had little to commend them either in structure or design. The former was in truth little more than a gateway near the forum, and the latter was but a plain circular edifice, though the most hallowed of Roman shrines, containing as it did the sacred fire and relics on which, as was supposed, the fate of the kingdom depended. It was several times destroyed, and finally rebuilt by Severus, with dome of Syracusan bronze symbolizing the canopy of heaven. Adjoining it was the Atrium Vestae, where dwelt the vestal virgins in small apartments fronting on the quadrangle, while the larger chambers were floored with mosaic work and lined with the rarest and most beautiful of polished marbles. The original structure was, however, of a more primitive character; for the home of the vestals, like the temple, was more than once demolished and restored. The last restoration was in the time of Hadrian, excavations made in 1883 disclosing many interesting remains, among them a vessel containing nearly a thousand English pennies of ninth and tenth century coinage—the Peters pence to Rome.

In the purest of Grecian style was the temple of Castor, rebuilt during the reign of Augustus on the site of the sorry looking structure erected five centuries before to commemorate the victory at Lake Regillus. Exceedingly graceful and delicate are the three Corinthian columns of Pentelic marble which form the most valuable among the remains. In the building itself is a striking example of the solidity of Roman architecture, massive walls of tufa eight feet in thickness, supporting the cellae and columns, while the podium is filled with concrete solid as a rock, its surface forming an elevated platform on which the superstructure is reared.

In the basement, as in other temples,—those of Saturn and Concord, for instance—were vaults in which money, jewelry, and plate were stored for safekeeping, a custom which the Romans appear to have adopted from the Greeks.

The temple of Concord, rebuilt by Tiberius and Drusus on the site of the structure which Camillus founded, was lined throughout with white and oriental marbles, its door-sill fashioned of huge marble blocks on which rested a bronze caduceus, emblem of peace. Within was a magnificent collection of paintings, statuary, engraved gems, and costly plate, for the most part the workmanship of Greek artists and workers in art. The tympanum was covered with sculptures; the portico was filled with

statues, and of the rich Corinthian entablature many fragments are still preserved. Close at hand was the temple of Vespasian, also lined with marble, and with an internal range of Corinthian columns, as in the fane of Concord.

The largest of Roman temples was that of Venus Felix, on an outlying spur of the Palatine known as the Velia, near which are exposed for a height of 20 or 30 feet the foundations of the Golden House of Nero. Around it were Corinthian columns of Pentelic marble, and an outer colonnade with nearly 200 pillars of granite and porphyry, of which a few fragments still remain, together with portions of the cellae, where were colossal figures of the goddess. Designed by Hadrian and probably completed by Antoninus Pius, it was partially destroyed and in part restored in the reign of Maxentius, its restoration being continued by Constantine. For centuries its remains were utilized as a quarry, the marble being converted into lime in kilns constructed of broken pieces of porphyry, while the gilt bronze tiles which covered the roof were used by Pope Honorius I for the basilica of St Peter's.

Of all the great monuments of the empire the Pantheon of Agrippa in the Campus Martius is the best preserved, still remaining almost in its entirety. Though portions of it belonged to the system of thermae planned by Agrippa, the huge round structure which formed the Pantheon proper, its enormous dome, 142 feet in span resting on a podium 73 feet in height, and seemingly balanced in air, was consecrated to the gods from whom was traced the ancestry of the Caesars. The dome was lighted at the apex by an aperture so far above ground that in the most violent storm not a breath of wind was felt by those who stood beneath, the rain falling vertically upon the pavement, where it traced a circle 30 feet in diameter. For the covering of the dome and the ceiling of the portico, in rear of which stood colossal statues of Augustus and Agrippa, were used 450,000 pounds of Syracusan bronze, the ceiling being supported by massive girders, afterward melted and cast into cannon for the fortress of Saint Angelo. The walls were of tufa concrete, lined with brick and nearly 20 feet in thickness; the larger columns were of granite, with others of white marble and on the tympanum were figures in relief representing the conflict between the gods and giants. In the interior were oriental marbles and colored porphyries in great variety, some of them belonging to the restorations of Hadrian and Severus, and within recent years have been disclosed the remains of a grand hall with Corinthian pillars supporting a richly sculptured entablature, forming a part of the thermae which later became the pride of Rome.

The first of some forty triumphal arches were erected nearly two hundred years before the Christian era in the Circus Maximus and the Forum Boarium from the spoils which Stertinius gathered in Spain. In Domitian's arch of Titus and Vespasian on the Sacra Via, probably the earliest specimen of the composite order, is represented the triumphal procession held after the conquest of Judae, with Titus and his chariot carved in relief on the inner side, and on the exterior, soldiers bearing the trumpets, the golden candlestick, and other sacred articles taken from the temple at Jerusalem. Of the arch of Marcus Aurelius, which spanned what is now the Corso, some of its finest reliefs have been preserved in the Capitoline museum. Of existing arches, the one which Constantine erected near the Coliseum is perhaps the finest, though owing none of its beauties to this period of art degradation; for not only the entire design but the reliefs and other decorative features are taken from the structure which Trajan reared as an entrance way to his forum.

The marble pedestal of Antonine's column, a granite monolith surmounted by a colossal gilt-bronze statue, is among the Vatican collection, as also is a fragment of the shaft, with an inscription stating

that it was fashioned in the ninth year of Trajan's reign, the remainder of the material being used to repair the obelisk which Augustus erected in the Campus Martins. The Trajan and Aurelian columns were both more than 100 feet in height, the latter, which stood in front of the temple of Aurelius, also with its colossal statue and with spiral reliefs in twenty tiers representing the emperor's victories in Germany.

The palace of Augustus, with the adjacent temple and libraries of Apollo, contained in the Area Apollinis, occupied the center of the Palatine hill, of which, as of Rome itself, this costly and magnificent group, stored with the choicest productions of Greek artists and art workers in gold and silver, in ivory, bronze, and marble, which stood on the was the chief architectural ornament. Of the palace itself, edge of the cliff, facing the Circus Maximus, but little is known except what Ovid tells us; for none of it is now above ground, though drawings still in existence show the results of excavations made in 1775. The temple, on the building of which were expended eight years of time and money without stint, was approached through propylae no less imposing than those of the Athenian Acropolis and through a portico with more than fifty fluted columns of Numidian and Grecian marble, between which were statues of the Danaids and their bridegrooms. In front was a shrine of Vesta and an altar surrounded with oxen in bronze, the latter the workmanship of Myron, one of the foremost sculptors of the school to which Phidias belonged. On the door was represented in ivory reliefs the death of the Niobids; around the walls were statues of the muses, and in the cella those of Apollo by Scopas and of Latona by Praxiteles, with others in gold and silver and a choice collection of precious stones presented by Marcellus. Of Augustus an inscription records that he sold eighty silver images of himself, presented by his admirers, and with the proceeds dedicated golden gifts to this fane which he reared to the glory of Apollo and of Augustus. Flanking the portico were the libraries, one containing works in Latin and the other in Greek, forming together what was then the best collection extant of classic literature.

Finally there was a spacious hall where at times the senate held its of which stood a colossal statue of the sessions, and in the center emperor fifty feet in height.

The palace of Caligula, while one of the largest and most costly, was also one of the most unsightly structures on the Palatine hill, where the mansions of many wealthy Romans, purchased at enormous cost, were all insufficient for this unwieldy edifice. Extended on lofty arches over the Clivus Victoriae, its substructures were of gigantic proportions, built probably for the purpose of raising the upper rooms to a level with the summit of the mount. Portions of the ground floor would appear to have been used as shops; for still may be traced the wide openings that contained the wooden fronts, then characteristic of Roman as now of eastern stores and warehouses. Above them were chambers lined with marble and rich in columnar and mosaic decorations, of which only the merest fragments remain.

The Flavian palace, with its imposing peristyle, its outer colonnades, its walls and floors all of the finest oriental marble, polished in brilliant hues, was filled with Greek statuary, of which many specimens, unearthed during the excavations ordered by the duke of Parma early in the eighteenth century, are still preserved in the museums of Naples. The choicest among them were in the throne-room and the basilica, the plan of the latter being afterward adopted in the Christian basilica, presently to be described. The entire building was used only for state occasions, the emperor himself residing in the palace of Caligula, with which it was connected by a subterranean passage.

By Hadrian was almost completed the Stadium Palatinum founded by Domitian and later altered by Severus. Adjoining it was the palace of Hadrian, with richly decorated chambers, one of which, overlooking the race course, is still in a fair state of preservation. As compared with other of the imperial mansions, it was neither a large nor costly building, though one of the most artistic and sightly structures on the Palatine hill Hadrian was himself an artist and a lover of art for its own sake as well as for the luster which it conferred on the empire, superintending in person the public monuments with which he adorned the capital and other portions of his domain. From the extensive remains of his villa near Tivoli, itself a work of art have been transferred to the Vatican, many beautiful specimens of ornamental sculpture and of statues and groups in marble, bronze, and granite, forming portions of a magnificent collection made during his progress through the provinces.

In height, as in superficial area, the palace of Severus was of enormous proportions, covering the southeastern angle of the Palatine and thence extending far into the valley of the Circus Maximus, the latter portion raised on substructures from the base to more than a hundred feet above the level of the mount.

Adjoining it were spacious bathrooms lined with marble and richly decorated with mosaics, water being supplied from the conduit which Nero built as an extension of the Claudian aqueduct. At the foot of the hill stood the Septizonium, a seven story building with elaborate ornamentation, which Severus dedicated to the sun and moon. During the pontificate of Sixtus V that which remained of it was destroyed its marble columns and other embellishments being used for the new basilica of St. Peter.

Until near the close of the consular period there were few costly and pretentious mansions in Rome; for as yet there was no great accumulation of riches. In the consulship of Lepidus, one of the wealthiest of Roman citizens there was not in the capital, as Pliny relates a finer residence than that of Lepidus himself; and yet within thirty years from that period there were at least a hundred that surpassed it in magnificence. “Let a person take into consideration,” says Pliny, "the vast masses of marble, the productions of painters, the regal treasures that must have been expended in bringing these hundred mansions to vie with one that had been in its day the most sumptuous and the most celebrated in all the city; then let him reflect that since that time these have again been far excelled by others without number.”

Though with many exceptions, the mansions of the wealthy and noble were for the most part of plain exterior, decorative effect being reserved for the internal portions. The chambers were of no great size and usually windowless, although the Romans understood the manufacture of glass, the best of them containing paintings, arabesques, and architectural ornamentations. The houses of the plebeians were of brick, fronting on narrow, irregular, and ill-paved streets, and often negligently built by speculative and dishonest contractors, with the result that the former were reduced to beggary and the latter became exceedingly rich. While towering above them were here and there a few pretentious structures, with porticos and perhaps with facades of marble, the boast of Augustus that he found Rome a city of brick and left it one of marble was true in the main only of its public buildings.

As a rule the man of wealth regarded his city residence merely as a place in which to eat and sleep and decently entertain his friends, expending his means on a costly villa either in the neighborhood of Rome or near some favorite resort. Cicero for instance had his Formian villa, and Sallust a country home which he loved even better than his famous gardens on the Quirinal, while Lucullus, whom

Pompey named the Roman Xerxes, had his parks and mansions at Tusculum, where on a single banquet he would expend 200,000 sesterces. "In the domains of Tusculum and Tibur" says Mommsend, speaking of a somewhat later era, "on the shores of Tarracina and Baiae, where the old Latin and Italian farmers had sown and reaped, there now rose in barren splendor the villas of the Roman nobles some of which covered the space of a moderate sized town with their appurtenances of garden grounds and aqueducts, fresh and salt-water ponds for the preservation and breeding of river and marine fishes, nurseries of snails and slugs, game preserves for keeping hares, rabbits, stags, roes, and wild boars, and aviaries in which even cranes and peacocks were kept. But the luxury of a great city enriches also many an industrious hand, and supports more poor than philanthropy with its expenditure of alms. The aviaries and fish-ponds of the grandees were of course under ordinary circumstances a very costly indulgence; but this system was carried to such an extent that the stock of a pigeon house was valued at 100,000 sesterces."

However beneficial this extravagance may have been to those whom the wealthy patronized or employed, it was not so with the masses of the people; for in the closing decades of the republic agriculture was simply crowded out of the land, while for want of skilled workmen there were few manufactures or other important industries. Thus it was that in Rome there were virtually only two classes—the rich who reveled in luxury and the poor who lived in abject poverty, depending on donations from the public treasury or from those whom their votes had helped to rob the treasury.

In this community of mendicants and millionaires there were more than 300,000 persons entitled to the distributions of food for which no payment was expected. For those who worked with their hands the daily wage did not average more than three sesterces or fifteen cents a day, thus driving many into the army for the sake of its pay and perquisites; for as in the days of Napoleon military service was the royal road to wealth. As for the rest, they formed the idle and criminal element, the rabble or proletariat of Rome.

While the possessions of wealthy Romans contrast somewhat feebly with those of modern millionaires, they were nevertheless considerable and somewhat widely distributed, at least two thousand citizens being accounted as wealthy. In the days of Marius an estate of 2,000,000 sesterces, or $100,000 was accounted as riches; but a few years later the standard was largely increased. Crassus, the richest of all the Romans, except perhaps Lucullus, began life with $350,000 and after distributing enormous sums in entertaining the people, died worth $8,500,000. The property left by Pompey was purchased for $3,500,000; Ahenobarbus, to whose family Nero belonged distributed allotments of land among 20,000 soldiers without impairing his estate; Aesop the actor, a contemporary of Roscius, was worth $1,000,000, and there were many who by farming traffic, and money-lending accumulated what were then considered as enormous sums. Others who afterward secured princely fortunes commenced their career with princely liabilities; Julius Caesar owing, as I have said, $1,000,000 to $1,250,000; Mark Antony $2,000,000, and the partisan leader Milo $3,500,000. Politics were then, as today, an expensive pastime, for all the higher offices were sold to the highest bidder, as much as $500,000 being paid for the consulship, which lasted but for a single year.

The highest price paid for a Roman mansion, so far as recorded, was $750,000; but there were probably few that cost more than half that amount. For country villas and their appurtenances $200,000 may be stated as an average outlay and of these at least two were maintained by the

wealthier grandees; one in the mountains near Rome and another at Baiae, Puteoli, or elsewhere on the Campanian coast. Their furniture was of the most costly description, $50,000 being paid for a single table fashioned of African cyprus.

At their banquets quests reclined on lounges mounted in silver, and of silver were the shelves of the banqueting hall and even the kitchen utensils. The fashionable Roman dressed in purple attire, the folds of which were carefully adjusted before the mirror. Jewels and pearls had taken the place of simple golden ornaments, and these were in such profusion that at the triumph of Pompey his image was displayed entirely wrought in pearls.

In nothing did extravagance run to such excess as in the luxury of the table, the entire villa being arranged with a view to the feasts which were almost of daily occurrence. Land and sea were ransacked to provide new dainties and delicacies for the jaded appetites of Roman epicures and gourmands. From Chalcedon came tunny-fish; from Tarentum oysters, and from the straits of Gades purple shell-fish; there were grouse from Phrygia; peacocks from Samos, and cranes from the island of Melos, with chickens, ducks, and hares dressed in the highest style of culinary art, while Egypt and Spain furnished the choicest of fruits and nuts. Foreign wines only were drunk, especially those of Sicily, Chios, and Lesbos, of which enormous stocks were kept in the cellars of the rich, the orator Hortensius, for instance, whose forty years of practice had brought him enormous wealth, leaving to his heir 10,000 jars or more than 80,000 gallons of the choicest of Grecian and other vintages.

First of all the lessons learned by those who aspired to office in Rome was that the people must be amused and fed, both free of cost or nearly so. Thus in the earlier days of the empire, when the wealth of the world was concentrated in the imperial city, enormous sums were expended on the support and entertainment of the populace, distributions of money being frequent, while daily or weekly distributions of grain were regarded as a matter of course, and to these oil and wine were not infrequently added. Living as they did almost at the public expense, or rather at the expense of the emperors, the poorer citizens had much idle time on their hands, and this they were never at a loss how to spend. For a small copper coin they could enjoy all the luxury of the thermae or public baths, with their libraries, art galleries, and gymnasia. Without payment of any kind they might sit all day, as often they did, in the Circus Maximus, which to them was their home and temple, the very center and heart of Rome, as Rome was the center of the world. Long before dawn an impatient crowd was assembled, intent on securing places, and many there were who passed a sleepless night in the porticos adjacent. From morn till eve, heedless of summer heats or winter rains, spectators to the number of a quarter of a million or more remained in rapt attention, their gaze intent on horses and charioteers while alternating between hope and fear for the success of their favorite champions, as though the fate of the empire depended on the issue of a race.

The Circus Maximus was the most ancient structure of its kind in Rome; for the original building was erected, as is supposed, by the younger Tarquin, though it was not until the fourth century that horse and chariot racing was introduced.

After being many times altered and enlarged, and more than once partially destroyed by fire, it was finally completed by Constantine, with facade of marble and sloping tiers of marble seats, of which the lower rows were reserved for persons of rank. Long before his reign the combats of gladiators and of men with beasts had given place to chariot and other racing. The chariots passed seven times round the course, and to avoid the goal at either end—the meta fervidis evitata rotis, as Horace puts it—was

the test of the driver's skill. They were usually drawn by two or four horses, and sometimes was combined with these exhibitions a race of riders who leaped from the back of one steed to another. Most of the drivers were slaves, and with the horses, equipage, and attendants, were furnished by wealthy owners of studs, who doubtless found their pastime as expensive as the horse-breeding and horse-racing of the present day. Among other Roman circi was that of Caligula and Nero in the gardens of Agrippina at the foot of the Vatican hill, where now stands the sacristy of St. Peter’s.

By the aedile Marcus Scaurus was erected, merely for temporary use, a theater which, Pliny terms the greatest work ever accomplished by the hands of man. It was of three stories, and supported on 360 columns, and between them brazen statues, 3,000 in number. The lowest story was walled with marble, the second with glass, and the third with gilded wood, seats being provided for 80,000 spectators.

Pompey’s theater, in which was the fanes of Venus Victrix and Roma Aeterna, and in front a portico of a hundred columns, was the first one built of stone; for in republican Rome there was a prejudice against the permanent temples of the drama which found favor with the Greeks. In close proximity was the curia of Pompey, where Caesar was assassinated. In the middle of the sixteenth century the colossal statue at the base of which he expired, now standing in the Palazzo Spada, was unearthed in the neighborhood of its site, as also, some fifty years ago, was the huge bronze statue of Hercules,—a third century work—whose present home is in the Vatican. After Caesar's death the theater was burned to the ground by order of the senate, and the spot where it stood declared forever accursed. It was restored, however, by Augustus, and after being twice again consumed was rebuilt by Titus with accommodation, as Pliny relates for 40,000 spectators. Some portions only of its foundations remain but of the theater of Marcellus, completed by his uncle Augustus, a well preserved remnant of the external arcade shows that it was mainly of the Ionic order and with architectural details of remarkable delicacy. As Pliny would have us believe, two contiguous theaters built of wood, placed back to back, and when filled with spectators revolving on pivots.

More probable is the story that Caesar placed at the disposal of his friend Aemilius Paulus 8,000,000 sesterces wherewith to build the Basilica Julia, completed by Augustus and containing innumerable pillars of the finest Phrygian marble.

By Julius was erected the first regular amphitheatre followed by those of Caligula and Nero, all of wood and used for wild beast and gladiatorial exhibitions. The first one of stone was the Coliseum, so called from the colossus or colossal statue in the porch of Nero’s Golden House, 120 feet in height, so altered by Vespasian as to resemble Apollo, and removed by Hadrian to the neighborhood of the great edifice whose ruins are still regarded with a feeling akin to awe. Built by Vespasian and Titus, and restored by Alexander Severus after being partially destroyed by fire, the Coliseum was elliptical in shape, with shorter 515 feet in length, and an arena about 2S0 by 170 feet, though the dimensions of the latter are variously stated. It was 180 feet in height; profusely decorated with Doric, Ionic, and Corinthian columns, and covered with an awning to protect from sun and rain the 110,000 spectators for whom seating and standing room was provided. The lowest of the ranges of seats, all of them concentric with the four stages of the external elevation, was called the podium, where sat the emperor, the senators, and the chief magistrates. Above were three galleries, of which the lowest was appropriated to the equestrian order, all being provided with passages, stairways, and covered corridors.

The arena, so called from the sand with which it was strewn, though some of the emperors used costly powders and even gold dust as a substitute, was enclosed with a wall of polished marble and a metal railing for protection against savage beasts. From hidden tubes a spray of scented liquids was scattered at times over the spectators, to neutralize, probably, the effect of imperfect ventilation and of the close, hot atmosphere breathed by the packed and sweltering multitude, protected only by an awning from the rays of a midsummer sun. In addition to the well-known entertainments, of which the massacre of Christians were most in favor, other attractions were produced, some of them difficult to explain, as the mimic fights between vessels of war that occasionally followed the regular exhibitions. Until the eighth century at least the Coliseum was still intact; but in common with other ancient buildings was later used as a quarry, Michael Angelo being one of its despoilers and freely using its materials for the building of a Roman palace. Elsewhere in Italy were other amphitheaters, many of them resembling the Coliseum in general features, though not of course in size. Among them was that of Fidenae, by the collapse of which, during the reign of Tiberius, 50,000 persons were killed or injured, and the one at Pompeii, pictured in the pages of Bulwer Lytton's romance.

During the empire the accumulations of statues and paintings were on an enormous scale, those of the regal and republican periods being now regarded merely as of sacred or archaeological interest. Not only had the principal cities of Greece, of Magna Graecia, Sicily, and Asia Minor been despoiled of their choicest treasures, but from the hands of Greek artists residing in the capital were innumerable copies of the more valuable works, many of them now preserved in the Vatican and other museums. They were of all materials, hundreds being of gold and ivory and thousands of silver, while those of marble and bronze outnumbered all the rest. In the mansions of the wealthy there were many libraries, and for wealthy authors, of whom there were not a few, household slaves made copies of their works for distribution among their friends.

To return to the emperors; by Caligula were squandered the vast stores of wealth left by his predecessor Tiberius, who managed the finances of the empire with economy. While distributing large donations among the people, and amusing them with costly games, Caligula squandered enormous sums on himself, his vices and his whims sometimes in such wanton fashion, that men said his mind was affected. He ordered, for instance, a bridge to be built from Baiae to Puteoli, merely that he might boast of having walked three miles across the sea. His private estates he sold at auction; he levied unheard of taxes; and scrupled not at open robbery extortion, or other means however infamous so long as they brought him money. Yet he caused himself to be worshipped as a god, and it was this probably more than all else that led to his assassination. Matters were somewhat better in the reign of Claudius, who distributing large donations among the praetorian cohorts, introduced what became a regular custom at the accession of the emperors. Among his many public works were completed some from plans before regarded as impracticable, especially the famous aqueduct which bears his name.

In the year 64 AD, the tenth of Nero's reign, occurred the great fire which, beginning in the wooden booths adjoining the Circus Maximus, swept over the city, until after several days its course was finally stayed by the Tiber and by the Servian wall.

Of the fourteen districts into which Rome was divided, three were entirely obliterated and of seven others little remained but the lurid skeletons of palace and temple walls. Four of the quarters survived; but of the most splendid of Roman mansions of the most sacred of Roman fanes, of the trophies of Roman wars, and the monuments of Grecian art, nearly all were lost in the common

destruction. By most authorities the conflagration was ascribed to Nero himself; but by Tacitus, whose verdict is probably worth all the rest, the emperor is acquitted of the crime and certain it is that his prompt and energetic measures for the relief of the sufferers do not consist with this charge of wholesale incendiarism. In the imperial gardens and the Campus Martins was afforded shelter for the homeless, while provisions were sold at extremely low rates and among the destitute distributed free of charge. The reconstruction of the city was at once begun, and no precautions were spared that might avert the recurrence of such a catastrophe. The buildings were mainly of stone, of limited height, and separated by open spaces, while narrow and tortuous alleys and lanes gave place to wide and regular streets, the new city arising in greater splendor than ever before, as is often the case with centers of wealth overtaken by similar disasters.

While the value of monuments and gems of art and architecture cannot be estimated in sesterces, the loss in money and the cost of rebuilding were probably larger than at any of the great conflagrations which have occurred before or since. More costly than all was the "golden house" which Nero erected as his palace, its walls adorned with masterpieces of Grecian art and ablaze with precious metals and precious stones; its grounds laid out in meadows, groves, and lakes, beyond which appeared in perspective some of the finest views near the city of the seven hills. Of all the emperor's iniquities and extravagances none gave so much offence as the building of this mammoth edifice of the dimensions of which it need only be said that the Coliseum and the thermae of Titus later occupied only a small portion of its site. That it obstructed the public thoroughfares, and that to make room for it were demolished hundreds of buildings that had escaped destruction in one of the populous quarters of Rome, was to Nero a matter of no significance. It gratified his vanity, as also did the colossal bronze statue of himself which stood in one of the porticos. To defray the expense, says Tacitus, Italy and many of the provinces were ransacked, thus adding to the discontent in Rome the hatred of those who were now the mainstay of the empire.

After masquerading in Greece as a competitor in the arena and a worshipper of Hellenic art, neglecting meanwhile the affairs of the nation, sentence of death being pronounced against him by the senate, Nero took his own life to escape the public executioner, and with him ended the line of the Caesars, though the title was still retained. His statues were broken or defaced; his golden house was destroyed, and from all Roman and other monuments his name was erased.

Passing over the reigns of Galba, Otho, and Vitellius, we come to that of Vespasian, the first of the Flavian emperors but a man of humble origin, his father being a tax-gatherer and money-lender. Proving himself an able leader, he was proclaimed by a majority of the legions; for by the legions, after the death of Nero, emperors were made and unmade, the sanction of the senate being merely a matter of form. It was largely during his reign that Rome was rebuilt, including its Coliseum, its temple of Capitoline Jove, its temple of Peace, and its public library. The avarice with which he was charged by Tacitus and Suetonius would appear rather to have been a studied system of economy, absolutely necessary in the disorganized condition of Roman finances. On occasion he could be liberal enough, and many were the impoverished nobles and senators, the professors and men of letters on whom he bestowed pensions of several hundred thousand sesterces a year. Of his son and successor Titus it is said that he devoted nearly all his private fortune to the relief of those left homeless and destitute by the disaster which in 79 befell Herculaneum and Pompeii. By Nerva were remedied, so far as possible, the evils committed by his predecessor Domitian, especially in the recall of exiles and relief from excessive taxation. Trajan, the fourteenth Roman emperor was the first who was not an Italian by

birth, though probably of Italian parentage. He was a thorough soldier, had seen hard service before assuming the purple, and was loved and respected by the legions; so that his election was readily confirmed throughout the empire. Entering Rome on foot some two years later, he gained at once the affections of the senate and people; for he lived among the latter as simply as he had lived among his soldiers, sharing their simple rations of bread and cheese, of salt pork and sour wine. For himself he discarded both power and pomp, proclaiming himself merely a citizen ruler, not above but subject to the laws. Presenting his sword to the commander of the praetorian guards, he exclaimed: "Use it for me if I do well, but against me if I do ill." His distributions of food and money were on a liberal scale, as also were his public works, and especially the fortifications which strengthened the great lines of defense between the Danube and the Nile. Returning in 106 laden with treasure from his Dacian campaigns, his triumph was of surpassing splendor, the games lasting four months as was said, while 10,000 beasts and almost as many gladiators contended in the arena.

To Hadrian the provinces were more his care than the imperial city itself, though in the latter he distributed large donations, remitting also the arrears of taxes for many years. None knew better than he that the time for conquest was over; that the limits of the empire as established by Augustus were not only ample in extent, but presented a frontier which could be readily defended, and that the aim should no longer be to enlarge but to consolidate and improve the condition of the regions already won. Hence his tours of the provinces accompanied by corps of architects and artisans, lasting for fifteen years and including all portions of his dominions.

Everywhere in the shape of temples, aqueducts, fortresses, or other public works he left the impress of his energy and liberality, and especially did he favor Athens, adding to it an entire quarter and completing the temple of the Olympian Zeus.

Of Antoninus Pius, adopted son and successor of Hadrian, it is related that instead of despoiling the provinces to minister to Roman luxury, he expended his private fortune in aiding the provinces. Living with his destined heir, Marcus Aurelius, most of their time was passed in the seaside villa of Laurium, the birthplace of Antoninus, where far from the vices and intrigues of Rome their lives were passed in study and in the simplest of pleasures and occupations. Aurelius has been called the crown and flower of Stoicism, and in his instruction was engaged such a body of teachers as for acquirements and character had never before been assembled even in Rome, where the most accomplished of Greek professors could be hired for 200 sesterces a year. During his reign occurred a series of disasters, flood, famine and earthquake, fire and pestilence following in quick succession, while revolts were frequent and in several quarters the empire was threatened by barbarian hordes. The brief intervals between his wars he devoted to study, the fruits of which are read today with even greater interest than the works of the classic masters. His Meditations come nearer to the teachings of the New Testament than those of any of the non-Christian philosophers, and yet, though the avowed apostle of moderation and temperance, he sanctioned a most cruel persecution of the Christians. They were written in the midst of public affairs, or perhaps on the eve of battles on which hung the fate of the empire, thus giving to them a fragmentary character, which does not, however, detract from their merit and charm. As some would have us believe, they were intended only for the use of his son Commodus; but if so they signally failed of their purpose; for of all the tyrants who wore the purple there were none more degraded than Commodus. The friends of his father were butchered merely because they were wealthy, learned, or men of honor and probity. As for himself he fairly wallowed in vice; maintaining three hundred concubines, indulging in the most shameless debaucheries,

appearing as a gladiator in the circus, and associating with buffoons, of whom he was himself the chief.

From the days of Commodus the annals of Rome contain little more than a succession of wars and intrigues, of deeds of tyranny and baseness, of pitiful exhibitions of impotence and folly, and disgusting exhibitions of brutality and vice, such as even Gibbon tires of describing. Here and there was a special monster of wickedness like Caracalla, and there were some whose qualities shed luster for a time on the decadence of the empire; such men as Septimius Severus, Probus, and Constantine the Great. But it was only with the utmost difficulty that the vast fabric of imperial Rome was preserved from dissolution. In addition to foreign wars there was a series of desperate struggles between rival aspirants to the purple, more than a score of emperors who sat in the seat of Augustus during the third century meeting with a violent death six of them almost within as many months.

The weakness of the central authority was further increased by the establishment of provincial empires, first in Gaul under Postumus, and later in the East.

The Syrian governor Odaenathus, for instance, prince of Palmyra, assumed the independent sovereignty of many eastern provinces, and his titles and possessions were inherited by his son, though the real power was in the hands of his widow Zenobia, who declaring herself empress openly defied the power of Rome. After a hard-fought campaign won more by gold than strategy, Palmyra was taken in 272, and its queen led captive to adorn the triumph of Aurelian. The spoils were enormous; for Palmyra was now the mistress of the eastern world, the emporium of the rich traffic of India China and Arabia, Rome herself importing yearly her jewels and pearls, her silks and other costly fabrics to the value of hundreds of millions of sesterces. The city itself was spared; but only to be destroyed and its inhabitants massacred after the revolt of the following year.

It was during the third century that successive hordes of barbarians and semi-barbarians began to lay waste the provinces, crippling their resources and inflicting on their inhabitants the scourges of famine and pestilence. In the east were the Parthians, and in the north the Goths the Franks and Alemanni, all making the best use of the opportunities afforded by internal dissension and strife. After defeating the emperor Decius, the Goths compelled his successor Gallus to purchase peace by costly gifts, and a few years later, with a fleet of 500 sail, ravaged the coasts of Greece and Asia Minor, returning with the spoils of Athens, Argos, and Corinth.

In the reign of Diocletian, who associated with himself Maximian, and later several others, Constantius and Galerius, the empire was reorganized under a system which, without the sacrifice of unity, distributed among them the cares and responsibilities of government. The armies were also divided, each having its own imperator, and with this change disappeared the last traces of the republican and Augustan eras, with limited powers and definite prerogatives. Despotic open and undisguised, was further hedged about with as in the pomp and formalities of oriental royalty, the wearing of the diadem, of silk and golden garments, and in the genuflexions and prostrations which succeeded the former method of salutation. Finally Rome was reduced to a level with the provinces, and for the first time since the founding of the eternal city Roman citizenship ceased to be a privilege.

For a brief period under the reign of Constantine the empire was again united, though the building of the new capital of Byzantium separate senate and government, prepared the way for its final division under the rule of Valentinian.

After the death of Theodosius in 395 came further barbaric invasions, Alaric the Visigoth laying siege to the city a few years later, but retiring under promise of a ransom of 5,000 pounds of gold and 30,000 of silver. Returning in 410, he entered Rome by night, and for six days handed it over to pillage, with all the attendant horrors. Vast as were the treasures secured, they were to him of little benefit; for in the same year they were buried with him in the bed of a river whose channel was diverted for the purpose, the captives employed on the work being put to death that none might know of their whereabouts. About the middle of the fifth century Attila, "the scourge of God," forces the Romans to purchase peace by the payment of a heavy tribute. As king of the Huns and other tribes north of the Danube and the Black sea, he was monarch of a mighty empire in northern and central Europe, defeating the Roman legions, laying waste the country around Byzantium, and dictating terms to the emperors of the east and west. In Gaul he appears in 451 with an army 700,000 strong, and though at first successful, is finally defeated at Chalons after one of the most desperate conflicts recorded in history. In the following summer he ravages northern Italy; but when Rome appeared to be in his grasp is induced to retire by an embassy from the supreme pontiff. Three years later comes the storming of the city by Genseric, king of the Vandals, followed by fourteen days and nights of pillage and plunder, with the violation of matrons and maids the whose chastity, nevertheless, the church declares inviolate. Among the spoils was nearly all that remained of public or private wealth, of treasures sacred or profane, including temple ornaments, and even the appendages of Jewish worship which Titus brought from Jerusalem, the golden table and the golden candlestick with seven branches, deposited in the Temple of Peace. The ornaments of the imperial palaces, with their costly furniture and wardrobes, their massive gold and silver plate, their jewelry and precious stones also contributed to the booty, whose total value amounted to several thousands of talents. Finally, in 476 AD Romulus Augustulus is deposed in favor of Odoacer the Rugian, and a barbarian monarch is seated on the throne of the Caesars.

As to the Rome of the middle ages little is known; for endless wars with their attendant pillagings and conflagrations left but few original documents on which to base the annals of the state.

After the partition of the empire its western Capital gradually became the religious rather than the political center of the world, though the bestowal of rich estates and benefices by the supreme pontiffs infused new blood into the aristocracy and gave to it at least a semblance of vitality. Many of the pontiffs were wealthy, and not a few were men of marked ability, possessing more worldly power than any European sovereign. Such a man, for example, was Gregory I, who administered with the greatest prudence the vast possessions and revenues of the church; so that the army being unpaid when the city was besieged by the Lombards, he supplied the funds first for the defense and then for the ransom of the city. Later the authority of the popes, after many struggles with Italian nobles and foreign potentates, was acknowledged even in matters temporal, almost throughout the civilized world.

The building of churches began in Rome during the reign of Constantine, before whose time the Christians must worship in their own houses or meet by stealth in the catacombs. Their earlier sanctuaries, of which those that remain have been altered beyond recognition, were of simple construction, rectangular in shape, with walls of concrete faced with brick, and plain windows of glass or translucent alabaster. In the interior were sculptured marble shafts of many designs, and in not a few were columns taken from the classic structures of the capitol. It was not until the fourteenth century that the erection of the papal palaces was begun, though before that date there were many beautiful compositions in marble enriched with mosaics, especially in the form of altars tombs and

campaniles. The Lateran palace, of the original of which, built in the age of Nero and at least thrice as large as the present structure, the Capella Sancta Sanctorum is all that remains, was the favorite residence of the popes. Its present use, as rebuilt by order of Sixtus V nearly three centuries after its destruction by fire is for a museum of classic sculpture and Christian antiquities.

The Vatican palace as it now exists, the largest in the world and the abode of the pontiffs after their return from Avignon, was begun by Nicholas V in 1447, its enlargement completion, and decoration being due to several of the pontiffs, of whom Pius IX gave to it the finishing touches and supplied its grand flight of stairs.

It has twenty courts, hundreds of halls, salas, chapels, and thousands of apartments, only a few of which are devoted to the papal court. Here amid a vast assortment of Roman and Greco-Roman statuary are gems of pure Hellenic art, with a valuable collection of Greek vases and relics from Etruscan tombs. In the library, with its 27,000 Latin, Greek, and oriental manuscripts, its archives of the middle ages, its correspondence of the pontiffs, and registers of papal acts from the days of Innocent III, are beautiful specimens of mediaeval artwork in the form of plate and jewels. A picture gallery of moderate size is stored with works of more than average merit, among which are canvases by several of the great masters. On the ceiling of the Sistine chapel is some of the finest workmanship of Michael Angelo, and on the altar wall, blackened by the smoke of centuries, is his famous painting of "The Last Judgment."

The original church of St. Peter is said to have been founded by Constantine on the site of Nero’s circus, where the apostle suffered martyrdom. It was in the form of a basilica, with nave, transept, and double aisles divided by Corinthian colonnades, its apse, in the central curve of which was the pontifical chair, being screened by pillars of Parian marble taken, as was claimed, from Solomon’s temple. While the interior was profusely decorated with gold and mosaic work, it was externally less imposing than other Roman basilicas, especially those of Trajan and Maxentius, the latter usually known as the temple of Peace.

For the present cathedral of St. Peter the plans were drawn by Bramante, the greatest architect of the Florentine period, in the form of a Greek cross covered with a gigantic dome resembling that of the Pantheon. The foundation stone was laid in 1506; but after his death, a few years later, Bramante’s design was discarded, the completion of the work being entrusted to Raphael, Michael Angelo and others. In 1626 the building was consecrated by Urban VIII, costing with additions since that date, including the sacristy erected by Pius VI, more than $50,000,000. In size it is nearly twice as large as the cathedrals of Milan and St. Paul, covering nearly four acres of ground, 640 feet in length and 435 in height from the pavement to the summit of the cross, which surmounts a dome 630 feet in circumference.

The portico, flanked with equestrian statues of Charlemagne and Constantine, is handsomely decorated, and at the entrances are antique columns of African marble, with other embellishments in doubtful taste, especially in the panels representing Christian subjects bordered with scenes from classic mythology, as the rape of Europa by Jupiter in the form of a bull. While to the exterior exception may be taken, the internal effect is extremely impressive, the enormous dome with the arcades below, the great dome pillars, and the arms of the cross forming the most striking features of an architectural composition the vastness of which is concealed by harmony of proportion.

During the latter part of the fifteenth and the opening years of the sixteenth century Rome was enriched with many stately and beautiful structures, for the most part of Florentine architecture. Among them were the Palazzo di Venezia of Paul II, built as were others of travertine blocks from the Coliseum; the Palazzo della Cancelleria, one of Bramante's masterpieces, as also were the adjoining church of Saint Lorenzo in Damaso, and the Palazzo Giraud, the former residence of Cardinal Wolsey and of Raphael. By Raphael were designed the Palazzo Vidoni, where in 1536 Charles V was entertained as the guest of the Caffarelli, and the Palazzo Madama, the former residence of the grand-dukes of Tuscany and now the meeting-place of the Italian senate. The Palazzo Farnese, where are the quarters of the French embassy to the papal court, was designed in part by Michael Angelo, and ranks among the finest compositions of the renaissance. The small but exceedingly tasteful structure known as the Villa Farnesina was completed in 1511 for the banker of the supreme pontiffs, later passing by inheritance to Cardinal Farnese and his family, and thence to the king of Naples. On the ceiling of the entrance hall are illustrations of the myth of Psyche, designed by Raphael and in an adjoining chamber is another mythological study entirely of his own composition-Galatea crossing the sea in a shell surrounded with cupids nymphs and tritons.

With museums and art galleries, both public and private, Rome is plentifully supplied. In the Capitoline museum is a valuable collection of classic statuary bronzes and coins. In the Museo Kircheriano, founded in 1601 by the Jesuit teacher after whom it was named, are grouped among other antiquities most of the prehistoric specimens in stone and iron, pottery and bronze, discovered in Italy and the islands adjacent. The University of Rome has its geological cabinets, together with a large assortment of minerals, and of the marbles used in the building of the ancient city. In the Borghese, Corsini, Doria, and Barberini palaces are the most famous of private art galleries, though except for the first containing little above the level of mediocrity. In the Barberini library are several thousand manuscripts, many of them by Greek and Latin authors, and of public libraries the largest is the Biblioteca Vittorio Emanuele, with more than half a million volumes and manuscripts, to which additions are constantly made from the choicest of current literature.

Of other Italian cities mention must be of the briefest; for that Paris is France is not more true than that Italy is merged in the eternal city. Yet the population of Rome is far exceeded by that of Naples, the most densely peopled, and as to site the most beautiful of European capitals. Though originally a Greek settlement, there are many traces of Roman occupation, as in the tunnel constructed probably about 30 BC through the promontory of Posillipo, 2,200 feet in length and in places 70 in height. Long before that date it had become a Roman possession, and in the days of Cicero was a center of wealth and culture, though its inhabitants were noted as today they are, for their indolent and effeminate habits. During the empire, it was a favorite resort not only for the rich but for the emperors themselves, and it was here that Nero made his first appearance on the stage. In the Gothic and other wars, and especially from the Lombards, it suffered many disasters and many changes of government, enjoying but the briefest intervals of peace, until in 1861 it was absorbed in the kingdom of Italy, of which it is today, as under Roman rule, one of the most beautiful and opulent cities.

The buildings of modern Naples are more remarkable for size than taste, most of them five or more stories in height, flat-roofed, stucco covered, and flanking narrow but well-paved streets. In former ages the city was protected by the castle of St. Elmo, built in the fourteenth century by Robert the Wise, and reconstructed in the sixteenth by Charles V, with massive ramparts and fosses hewn through the solid rock Rich in medieval sculpture is the church San Domenico Maggiore, adjacent to

which is the convent that contains the cell of Thomas Aquinas. Many of the Neapolitan churches and convents have been converted into museums, among them the Carthusian monastery, a richly decorated edifice with works of art by Guido, Ribera, and other masters.

The national museum, commonly termed the Museo Borbonico is a storehouse of Roman and Italian antiquities, including the Farnese collection, and all that was best worth preserving from the ruins of Pompeii, Herculaneum, Paestum, and other ancient cities. The Biblioteca Nazionale is the largest of Neapolitan libraries, containing some 400,000 volumes and 10,000 manuscripts, among them the collection of Cardinal Seripando and other valuable acquisitions of rare and curious works. The University of Naples, founded in 1224 by Frederick II, is the oldest in Italy, except those of Bologna and Padua, its muster-roll containing the names of more than 5,000 students. Among other institutions are the Royal society of Naples, the Royal College of music, and the Zoological station, one of the leading centers of modern research. Charitable establishments are numerous and handsomely endowed; the principal hospital has an income of $160,000 a year and accommodates 1,000 patients; the almshouse with its fine range of buildings has an annual revenue of $250,000. There are at least a score of theaters, of which the San Carlo opera-house is the largest in the world. It is liberally subsidized, and with it are intimately associated the names of Rossini, Donizetti, and others of the great composers.

On the bay of Naples and the gulf adjacent are several towns and villages whose sites are among the most beautiful in Europe, as Sorrento with its historic memories, Amalfi, on and Salerno with the capital of a great mediaeval republic, its white terraced houses its half-ruined Lombard castle, and its ancient cathedral, where Pope Hildebrand and Margaret of Anjou lie at rest.

But for the dramatic interest connected with its destruction, and for the discoveries brought to light by modern excavations, Pompeii, with its world-wide repute, would have been known, if known at all, merely as a provincial town. Toward the close of the republican era, however, and during the earlier empire it had become a favorite seaside resort for wealthy Romans, many of whom had here their villas.

Cicero, for instance, speaking with affection of his Pompeiian residence. In 63 AD it was partially destroyed by earthquake, and the inhabitants were still engaged in rebuilding their shattered edifices when overtaken by the catastrophe which a few years later buried the place beneath the ashes of Vesuvius. While by the same eruption Herculaneum was entombed under a solid mass of lava. Pompeii was covered only with scoriae and fragments of volcanic rock; but to a depth of fifteen or twenty feet, thus obliterating all traces of its buildings and streets, so that for nearly sixteen centuries even its site remained unknown.

As reproduced through explorations beginning as far back as 1755, the town was well laid out, with straight and well paved streets intersecting at right angles, but seldom more than 20 and never more than 30 feet in width. As in Rome, and nearly all Roman towns, the forum was the center of business activity and the resort of the lounger and politician. It was an elegant rather than an imposing structure, with a series of porticos on three of its sides, some of them arcaded and others supported on columns. Around it were the public buildings, the temples, the basilicas, the thermae, the theaters, and not far away an amphitheatre used for gladiatorial show; but neither in their design nor materials is there anything to indicate that Pompeii ranked higher than a second or third-class provincial town. As to works of art, while there are statuettes of finished and beautiful workmanship, the larger

statues, both in marble and bronze, are surpassed by those of Herculaneum. In the paintings also there is little to commend from an artistic point of view, though many are valuable as illustrations of the lives and habits of the people.

Milan, almost in the center of the rich plain of Lombardy, is enclosed with a wall seven miles in circuit, within which are the homes of 450,000 people. The cathedral, begun in 1386, is the work of several centuries and of many architects; the finishing touches were given, it is said, under the instructions of Napoleon in 1805. In size it is one of the largest in the world, 480 feet in length by 180 in width, with a tower 360 feet in height. It is of cruciform shape and of Gothic design, though with features of the Romanesque.

The walls are cased in marble, and of white marble is the roof, supported on 50 pillars, with niches for statuary, of which there are in all 2,000 pieces. A more ancient church is the one named after its founder Saint Ambrose, and erected in the fourth century on the ruins of a temple of Dionysius. Among other structures worthy of note are the royal and archiepiscopal palaces, the town-hall erected early in the fifteenth century, the Great hospital completed a few years later, and the Scala Theater, one of the finest in Italy. As the former home of many celebrated painters, sculptors, and architects, Milan is rich in works of art. World-famous is the picture gallery of the Brera, with its studies by Raphael, by Paul Veronese and others of the Venetian school, while in the Brera library are 250,000 volumes and a collection of manuscripts second only to that of the Biblioteca Ambrosiana.

Turin, though at least as ancient as the days of Hannibal, by whom it was captured 218 BC, is in appearance one of moist modern of Italian cities, with spacious squares and wide and regular streets. Its cathedral of St. John the Baptist is of fifteenth century renaissance architecture, and behind its high altar is the chapel of the Sudario, the shroud with which Joseph of Arimathea is said to have covered the body of Christ. In the tower of the church of La Beata Vergine are Vela's famous statues of Maria Theresa and Maria Adelaide. The Madama palace, built as first it stood by William of Montferrat, and the royal palace, with its museum of mineralogy and zoology, are the finest of the secular buildings. In the Castello palace is a valuable collection of manuscripts and drawings, including sketches by Raphael and Michael Angelo.

Thus the coast lands around Genoa, between the Apennines and the sea, are among the most favored spots for olives and citrus fruits, neither of which can be raised in the region north of the mountains, where in places the winter climate is colder than that of Denmark. And so with central Italy, in whose upland valleys entire communities are debarred by heavy snowstorms from all communication with their neighbors. Yet almost within sight of them are districts where the orange and fig-tree thrive luxuriantly on the borders of the Adriatic. In Calabria the contrast is especially marked; sub-tropical fruits, the sugar-cane, and cotton-plant ripening to perfection on its shores, a few miles from which are ranges covered with the fir and pine. In southern Italy the climate resembles that of Greece, except for the malaria which has given over to desolation many of the fertile plains encircled in former ages by a girdle of opulent settlements. The vine is cultivated almost throughout the peninsula, the production of wine exceeding 500,000,000 gallons a year, most of it for local consumption. As market gardeners the Italians have no superiors, earning a fair livelihood in the neighborhood of cities on lands for which they pay a rental of $100 an acre. The supply of live-stock is sufficient to permit a considerable export, and the forestry department adds nearly $20,000,000 a year to the revenue of the state, the total value of all agricultural and forest products exceeding $1,200,000,000 a year. Of

minerals sulfur and zinc are the most important, while the yield of the marble and other quarries is valued at $5,000,000 a year.

Since the unification of the Italian kingdom under Victor Emanuel, to whom his eldest son Humbert has proved no unworthy successor, the commerce of Italy has been largely developed, especially with the neighboring countries of Switzerland and France. For 1894 the total exports were estimated at $225,000,000, with imports of somewhat larger amount. Of the former silk is the principal item, and next are wines fruits olive-oil and provisions in various forms. Grain, raw cotton, and coal are the principal imports, foreign cereals to the amount of some $30,000,000 a year being required for the consumption of a people whose diet consists almost entirely of bread and thin rice soup. With her large extent of coast, her abundance of excellent harbors her central position on the Mediterranean seaboard, and the advantage of railroad communication with transalpine countries it is probable that Italy will erelong attain to the commercial position from which she has been debarred by many cycles of political disturbance.

Sicily, the wealthiest and most important of the Mediterranean islands, was for several centuries dominated by the Greeks, though subject at intervals to Carthaginian encroachments the native tribes, named Sikanoi, and the Sikeloi, originally an Italian race, which first appeared in Sicily about 1100 BC, being finally absorbed in the Hellenic settlements. During the seventh and sixth centuries these settlements became the most prosperous of the Grecian colonies, rivaling even Athens and Corinth in wealth and the luxuries that wealth can purchase, while in architectural monuments and works of art they were not greatly their inferiors. The reign of the tyrants, beginning with that of Phalaris of Agrigentum, whose holocaust of the brazen bull is probably a Phoenician tradition was in the main beneficial, for most of them were tyrants only in name and rather the champions than the oppressors of their country.

The praises of Hieron, for instance, were sung by Pindar, and Dionysius, his wars at an end, devoted himself to the planting of colonies.

In the Persian and Peloponnesian wars the nation suffered but little, though playing an important part in both, especially at the siege of Syracuse, where the destruction of the fleet and army of Nicias on which Athens had expended the last talent in her treasury, gave the death-blow to Athenian supremacy. During the first Punic war many cities were pillaged by the contending parties, Sicily becoming first an ally and then a province of Rome. It was frequently plundered during the later republic by Roman governors, and especially by Verres, who after bringing desolation on a contented and prosperous people, stripping them of their most valuable possessions, including treasures of art beyond all price, boasted that he had enough to maintain him in ease and luxury, though he should bribe a Roman jury with two-thirds of his spoils. A few centuries later the country became subject to Genseric the Vandal, and then in turn to the Goths, the Byzantine emperors the Saracens, the Normans, the Lombards, and others, finally, after many changes of dynasty, becoming a portion of the kingdom of Italy.

Syracuse, founded only a score of years after the founding of Rome, played an imperial part in the classic annals of Sicily. In the fifth century its citizens had become an exclusive and aristocratic body, owning large tracts of valuable land, this element developing first into a tyranny and then into a democracy, though whatever the form of government, the city increased in wealth and power until it passed under Roman rule. In 212 BC it surrendered, after an obstinate defense to Marcellus, who

carried away its treasures of art and handed it over to pillage, Archimedes being one of those who lost their lives in the massacre which followed. Later it again became a stately and opulent city, with temples amphitheatres and other public buildings, some of them erected or restored by Caligula. In modern Syracuse there is little of interest except its cathedral, erected on the site of an ancient fane of Minerva. Of Agrigentum, once the center of Sicilian commerce luxury and wealth, nothing but its ruins remains. More even than Syracuse it was noted for its splendid architectural monuments, the remnants of which, especially those of the temple of Olympian Jove, attest its former greatness.

Most of the surface of Sicily lies several hundred feet above the sea, with mountain ranges several thousand feet in height, and above all the volcano of Etna, rising nearly 11,000 feet from its 400 square miles of base. In some of the valleys plains and plateaus there is an abundant yield of cereals and fruits, oranges and olives, of which there are continuous groves on the northern mountain slopes, being largely raised for export. Wheat is still the leading product of the country, as in the days of the Roman Empire, of which it was the principal granary. Commerce is of small amount; manufactures are few and unimportant, and as to minerals, sulfur, the deposits of which are estimated at 500,000,000, is the only one of economic value.

In minerals Sardinia is the richest of the Italian provinces, its mines being worked by the Carthaginians and Romans, while there are probably at least a hundred in operation at the present day, most of them in the province of Iglesias. Silver and argentiferous lead, zinc, and iron are worked with fair returns; there are also copper, antimony, arsenic, nickel, cobalt, and of coal an abundant supply, though as yet but little utilized.

Agriculture is in a backward condition, due rather to malaria than to lack of fertility; for in former ages Sardinia was second only to Sicily among the granaries of Rome. There are no manufactures worthy of the name; but commerce is steadily increasing, showing almost a three-fold gain within the last quarter of a century. Sassari is the largest town, and Cagliari, the capital, with its high-mounted castle, its viceregal palace, its cathedral, university, and mansions of the noble and wealthy is the principal seaport and railroad terminus. Here and elsewhere on the island are many remains of the period when Sardinia was a Carthaginian colony, and in the tombs have been discovered strong traces of Egyptian settlements.

Malta, though a British possession, belongs geographically to Italy. The island contains a large number of historic ruins of great interest, as the stone erections in Gozo, the great temple of Melkart, and the excavations of Hagiar Kim. The manufactures and commerce which attained great importance under the Phoenicians, continued through the Augustan age of Rome. The Knights of Malta received large sums from a grateful Christendom for the advancement of Valetta, "a city erected by gentlemen for gentlemen” as they termed it. The modern town is built along and across a ridge of rock, its streets ending toward the harbor in flights of stairs, and bordered with flat-roofed houses, many of them with covered balconies projecting from the windows, giving to the place a strong element of the picturesque.

Miscellany

Except for the remains of Roma Quadrata, the Tullianum is probably the most ancient monument of the regal period. As its name implies, its first use was probably as a cistern, the word tullius signifying

a spring of water. Later it was converted into a dungeon—the barathron of Plutarch and the Mamertine prison of the middle ages. Into its loathsome cells, through a hole in the stone floor above its only aperture, Jugurtha, the Catiline conspirators, and other political offenders were lowered, some to be strangled and some to be starved to death. It has been said that St. Peter and St. Paul here suffered imprisonment.

Among the most striking specimens of Cyclopean architecture are the walls of the town of Norba on a declivity overlooking the Pontine Marshes. The town was burned to the ground by Sulla, but the walls are almost intact as also is the principal gate. Etruscan remains are numerous, and among them may be mentioned a conical mound called the Cucumella, 650 feet in circumference, where in a central crypt walled in with massive masonry, whose secret has never been disclosed, lie the remains of the Lucuno and his kin. On the summit were found the bases of crumbling towers, and in the cuttings winged sphinxes, lions, and other animals from which a restoration of the mysterious vault was possible.

To Servius Tullius is ascribed the introduction of coined money, its shape and standard of value probably borrowed from that of the Etruscans. The most ancient coin was the as, formed of the compound metal called aes, which may have been either brass or bronze, and named the as libralis from its weight of one liber or pound. At first the coins were oblong and afterward round in shape, the latter being stamped on one side with the double head of Janus and on the other with the prow of a ship. After the exhaustion of the treasury caused by the first Punic war the weight was reduced to two ounces, and in the reign of Severus to less than one-fifth of an ounce. The silver denarius was worth about 16 cents, and 25 of these were equal to a gold denarius. The sesterce was equal to somewhat less than five cents, and the sestertium, which represented 1,000 sesterces was a sum and not a coin. In the time of Augustus, while precious metals circulated by side, only silver was used for coinage, gold being paid and taken by weight.

It is more than probable that in the second Punic war Hannibal used gunpowder or some other form of explosive. Certain it is that Alpine rocks could not be eaten away with vinegar, as is the common story, and it is difficult to account for the overturning of huge masses of rock on the Roman legions in the defile skirting Lake Thrasimene, except by the use of explosives.

Maecenas, the patron of Horace and one of the wealthiest citizens of the Augustan era, was the first to erect public baths at his own expense. To ingratiate themselves with the people many of the emperors, and especially Nero, Titus, Domitian, Caracalla, and Diocletian, constructed thermae of vast extent, containing not only baths and suites of bathing apartments, but gymnasia, theaters, and libraries. Among the various chambers were the apodyterium where the bathers stripped, the unctuarium where they were anointed, and the caledarium and frigidarium where were hot and cold baths with others used for steam and plunge baths and for dressing rooms. In the thermae of Diocletian it is said, were 3,200 marble seats, and in those of Caracalla 1,600, a hall in the former being converted into a church of spacious dimensions, while the latter were more than a mile in circuit. For young men there was a place for playing ball and a stadium resembling though on a smaller scale, the one in the Circus Maximus, while for philosophers and men of letters there were open colonnades where they might discuss the news or read aloud their productions. In the more pretentious structures the walls were covered with mosaics in imitation of pictorial art; the galleries were lined with stately columns and with the choicest of statuary; in the chambers were the masterpieces of Phidias and Praxiteles, and

from the mouths of lions fashioned of polished silver, streams of water were poured into silver basins. "Such is the luxury of our times," remarks Seneca, "that we are not content if we do not tread on gems in our bathrooms." Of Apicius, an epicure who lived in the time of Tiberius, it is related that when he found he had but $400,000 left, after spending $4,000,000 on the delicacies of his table, he straightway went forth and hanged himself lest he should not be able to gratify his appetite.

Bewailing the use of gold rings, and remarking that "the worst crime committed against mankind was by him who first put a ring on his finger," Pliny mentions that the earlier Romans wore only those which were made of brass, as a token of warlike prowess. Yet the statement that after the battle of Cannae Hannibal sent to Carthage three modii of golden rings shows that they were in common use during the second Punic war and probably not restricted to the knights. Before and during the empire plain gold rings gave place to such as were engraved with various devices and set with gems of brilliant luster, "loading the fingers with entire revenues," as Pliny puts it.

Of Herodes Attic us, an Athenian citizen of the time of Nerva, when Greece was a Roman province, it is related that his father having discovered a vast amount of treasure buried beneath his house, he offered it to the emperor Nerva, to whom, according to law, it belonged as treasure trove.

But the monarch refused to accept it, or any part of it, bidding Herodos use it as he saw fit. Still the Athenian insisted, stating that it was too much for one who was merely his Subject, and that he knew not what use to make of it. "Abuse it then," said the emperor, "for it is your own." Most of it he devoted to public works and buildings, erecting in Athens a stadium of white marble 600 feet in length and large enough for the entire population of the city.

In Vespasian's temple of Peace were many of the choicest works of art, and from its site has been unearthed a large quantity of valuable antiquities. Here, says Dion Cassius, was the favorite meeting place for artists and men of letters, the temple containing a library with many rare and costly works.

To Antinous, page to the emperor Hadrian, for whose sake, it is said, he sacrificed his life, most extravagant honors were paid. Cities were named after him: temples and monuments were erected, and festivals held in his memory, while oracles delivered their responses in his name, and finally the youth was worshipped as a god. One good result of these absurdities was to impart a strong impulse to the sculptor's art in the effort to reproduce the deified page in idealized form. In the Capitol, the Vatican, the Louvre, and elsewhere are statues busts, and bas-reliefs, with innumerable medals stamped with his effigy.

To Pacificus, archdeacon of Verona during the ninth century, is ascribed the invention of clocks, though in nowise resembling those in modern use. Among other ancient clocks or horologia was that which the sultan of Egypt presented to Frederick II in 1232, in which the celestial bodies, impelled by wheel and weights, pointed to the hour of day or night. One made by the abbot of St. Alban's, England, is said to have shown such astronomical phenomena as could not be illustrated by mechanism elsewhere in the world.

The casa Polo was one of the most notable palaces in Venice after Mark's famous journey to the orient during the thirteenth century. On returning from his travels, he had many wonderful stories to tell so wonderful indeed that to relate what he saw and heard the word millions was repeatedly used; millions of diamonds, millions of ducats, millions of islands and kingdoms and kings. Hence the wits

of Venice gave him the nickname of II Milione, and the place where his house stood was called the corte del Milioni; but some say the name was given because he was a millionaire Ramusio tells us that on the return of Marco Polo to Venice his friends and family would not receive him, until with a sharp knife he ripped open the seams and welts of his old clothes, out of which fell rubies, emeralds, and other jewels, into which he had converted all his wealth on taking leave of the great khan—then they believed him.

It is estimated that on an average about $100,000,000 are annually expended in Italy by travelers, the majority of whom are citizens of England or the United States. At present the only means of local travel are omnibuses and horse-cars; but a concession was recently granted for the building of an electric line from the post-office to the principal railroad station.

One of the first acts of King Humbert's reign was to pay a portion of his father's debts, and this he did from his own private fortune, of which he contributed nearly $4,000,000. Humbert is one of the most economical of monarchs, though economy is forced upon him by the impoverished condition of his people, abolishing more than 160 offices of court in a single year.

By Barrett Browning was established in Asolo, opposite the house in which his father sojourned, a lace school where girls are taught how to reproduce old patterns of Venetian lace.

The debt of the Italian kingdom amounts to $2,375,000, or nearly $80 per capita, an enormous burden for a country where farm and other laborers can barely earn enough to keep body and soul together, and in some of whose cities, as in Venice, more than one-fourth of the people are supported by charity. Taxes are extremely heavy, though somewhat reduced within recent years, the estimated revenue for 1894-1895 being $336,000,000, and the expenditure $357,000,000. The debt of Italy is about 50 per cent more and the expenditure only 20 per cent less than that of the United States, with twice her population and probably ten times bet wealth.

Italy has about 9,500 miles of railways, belonging mainly to the state, though in 1885 their working was transferred under a 60 years lease to private companies. The telegraph system, with some 25,000 miles in operation, is a government monopoly.

In case of war more than 3,000,000 troops could be mustered into service; but only 270,000 are included in the regular army, the remainder consisting of mobile and territorial militia and men on unlimited leave. The navy ranks third among those of European powers, with 16 battle or port defense ships, 61 cruisers, and 150 torpedo boats.

Riches are of little avail in many of the calamities to which mankind are liable: yet riches are able to solder up abundance of flaws. "Look you, friend Sancho," said the duke, "I can give away no part of heaven, not even a nails breadth; for God has reserved to himself the disposal of such favors; but what it is in my power to give, I give you with all my heart; and the island I now present to you is ready made, round and sound, well proportioned, and above measure fruitful, and where, by good management, you may yourself, with the riches of the earth, purchase an inheritance in heaven." "Well, then," answered Sancho, "let this island be forthcoming and it shall go hard with me but I will be such a governor that, in spite of rogues, heaven will take me in. Nor is it out of covetousness that I forsake my humble cottage and aspire to greater things, but the desire I have to taste what it is to be a governor." "If once you taste it, Sancho," quoth the duke, "you will lick your finders after it: so sweet it is to command and be obeyed." "Faith, sir, you are in the right." quoth Sancho: "it is pleasant to govern, though it he hut a flock of sheep."

Spain, once mistress of the world, as were each in turn Chaldea and Carthage, Egypt, Greece, and Rome, has still remaining some of the great achievements of the human race. Many of these, it is true, were the work of Arabs, and the crowning glory of the nation came in the form of a gift from a Genoese sailor nevertheless the Spanish monarchs had many shiploads of gold to spend, which it was hardly possible to do without leaving something whereby to remember them, though it were but a plat upon the perspective of history, like the huge Escorial, erected in honor of a saint. Yet for all that can be said, Spain's glory was very great; likewise her power and her wealth: for great and singular had been opportunity, of which to some extent she made avail. The harvesting, temporal and spiritual, begun by Ferdinand and Isabella at Granada, and continued by Charles V and Philip II, was the result of a long seed time and rare good fortune—seven centuries of what proved in the main successful warfare and half a world thrown like a gift into the lap of several sovereigns for him to accept who would. Without able rulers, opportunity would have availed little; and Spain had able rulers, had great and gifted men for monarchs, though more who were insignificant and detestable; yet the foolish kings did not always bring on the nation her most grievous calamities, nor were the wisest always wise; better far had their catholic Majesties kept their Moors and Jews for useful labor, and let go the many golden isles and lands beyond the seas which finally wrought their country's undoing.

In the evolution of the modern Spaniard the old Iberian and Celt, or Celtiberian, united with the Carthaginian, Greek, Roman, Vandal, Goth, and Arabian, all of widely different races, contributed of their characteristics, the Romans in the main predominating. Thus to the Roman the Spaniard owes his stateliness and pride, to the Arab his fiery temperament and much of his art and learning, while in his national institutions are traces of Teutonic influence.

Soil, climate, and whatever goes to make up the natural wealth of a country were better in Spain before her forests were destroyed, and dry and desolating winds permitted to sweep at random over sierra and plateau. Vast areas became valueless, or less valuable, as happened on the elevated table-lands of La Mancha and Castile, though still are fair forests of oak and other merchantable woods in the Sierra Nevada, the Sierra Morena, and the Pyrenees.

The varied configuration of the Spanish peninsula, the varied origin of populations, and the conditions of settlement united to form widely different peoples. There are the lofty Pyrenees along the northern boundary, and in the south, rising from the heated plains of Andalusia, the chill summits of the Sierra Nevada; there are the central high plateau, the intersecting lesser sierras, the low well-watered plains, and the warm fertile valleys. Cut into physical divisions internally, the peninsula is likewise separated by physical barriers from the rest of the world. The five large and five lesser rivers are of little value as navigable streams; there are many salt lakes, especially in Catalonia and Aragon, and of mineral springs there are 2,000 or more.

Hence, as I have said, the varied peoples and conditions,—the rugged Basque, prepared for the cold blasts from the Atlantic, and the sparkling Andalusian, his blood warmed by the sensuous breezes from the Mediterranean; the grave and thrifty Catalonian, the humble and hard working Galician, and the proud native of Aragon. Along the eastern or Mediterranean side, in an atmosphere pure and brilliant, grow olives and oranges, cotton and sugar-cane, date-palms and bananas; Valencia is an African garden set in a Sicilian landscape; here and at the northern end are golden grain, the vine, and

all tropical fruits and nuts,—pomegranates and pineapples, figs dates almonds and the like. Andalusia is a paradise of perennial youth and freshness, a paradise also of luxury and laziness.

On the western or Atlantic seaboard of the peninsula are raised in profusion grain, fruits, and the vine, with trees of hardy growth, as the oak and chestnut. There are still in Catalonia forests of beech and pine; Biscay is also well wooded; the two Castiles are almost bare of woods; Aragon produces grain, flax, hemp, the vine, and dye-stuffs, and affords pasture for sheep and cattle. Galicia on its limited area of arable land, raises fruits in abundance, as well as wheat, barley, corn, and flax. The Gallegos as the inhabitants are called, are the servants of Spain, and speak a dialect different from others; the men swarming at certain seasons of the year into the towns of Spain and Portugal, where they find work, leaving their wives to conduct affairs at home. Estremadura, encircled by mountains, has a fertile soil which produces wheat and barley, but the people are improvident, and when inclined to industry in any form prefer the raising of sheep and cattle. Indeed the high plateaus are almost entirely given up to this industry, migratory flocks and herds roaming over the country to the injury of all who attempt legitimate farming. Murcia, Granada, and Valencia cultivate mulberry trees for silk-worms. Leon, in the Pyrenees, where Pelayo lived and planned the future redemption of Spain, is unfitted for husbandry through extremes of heat and cold, in early times breeding only patriots. In Navarre grain, hemp, flax, wine, oil, and liquorices are produced. Murcia has little good land except on the banks of streams, but is well supplied with minerals.

Metals and minerals are well distributed in many portions of Spain, though at present but little worked; iron in Biscay, silver in Andalusia; gold pearls and rubies, copper coal and petroleum, cinnabar and marble at various points. The rich mines of gold and silver which attracted the ancients to these shores are, with the exception of the silver mine of Guadal Canal and the gold mine of Adissa in Portugal either exhausted or abandoned; but the more useful metals are found throughout the peninsula, with precious stones in places. The best lead mines are at Linares and in the Sierra de Gador. Tin ores are worked on a small scale in Galicia; near Oporto is good coal; also in Aragon, La Mancha and Asturias.

From the earliest times of which we have record the Carthaginians and after them the Romans, knew of and worked the gold and silver mines of Spain, traces of their engineering achievements still in existence, commanding our astonishment. In the Sierra Morena are rich deposits of gold, silver, iron, copper, and lead, and the quicksilver mines of Almaden gave to the Roman women the cinnabar with which they delighted to redden their hair, just as the savages of California resorted to the spot called by white men New Almaden for material wherewith to paint their faces.

At least a thousand years before the Christian era Phoenician navigators took possession of the Mediterranean seaboard, of Granada, Murcia, Valencia, and founded colonies, notably Tartessus, or Tarshish, and Gades, or Cadiz, where figured the Tyrian Hercules. The metalliferous Gaudalquiver attracted their attention, and Malaga, Cordova, and Seville show signs of Phœnician presence. A century later appeared the Greeks, and established themselves, among other places, at Emporiae that is to say Ampurias, on the coast of Catalonia, and Saguntum, later Murviedro, in Valencia. Then came the Carthaginians, led by Hamilcar and Hasdrubal, and planted a new Carthage on the Spanish shore, teaching the rude tribes how to work their mines and grow grain, giving in exchange for their products goods from Tyre and old Carthage. Presently the Carthaginians dominated not only the natives, but the colonies of all other nations; for their city had become strong and rich, was well

fortified, and commanded an extensive commerce. The Greeks appealed to Rome for protection, and the Punic wars followed, in which the Scipios finally gained possession of the coast from the Pyrenees to Cartagena, but not until after a death struggle with Hannibal, the Carthaginian. Not many years later Rome was in possession of the entire peninsula, except the Basque provinces, and during this conquest occurred many brilliant episodes, as the storming of Cartagena, the treasure city of the Punic provinces, and the vast riches secured by Publius Cornelius Scipio.

The Carthaginians vanquished and the country finally reduced to submission after many a vain attempt to shake off the yoke. Spain became one of the richest of Roman possessions, at once a source of supply and a seat of Roman learning, where were born Trajan and Hadrian. Quintilian and Martial, where Cato was consul, and over which Pompey and Caesar quarreled. Among Greek and Roman remains, are those of Murviedro, or Old Walls, showing where 2,100 years ago stood Saguntum, a powerful and opulent city, strongly walled, and with aqueduct, amphitheater, palaces, and temples. Also there is the palace of Augustus at Tarragona, now serving as a prison; the Trajan arch of Bara; the bridges of Alcantara, Salamanca, and Calatrava; the aqueducts of Tarragona and Seville; the bridge and aqueduct of Evora and of Segovia. On every side we have material evidence of the presence of the Goths; and as for the Arabs, take away their palaces and mosques, their thousands of artistic treasures, and we lose much that is best worth preserving in the art and architecture of Spain.

Christianized in the time of Constantine, Spain has ever since remained intensely Christian. Upon the fall of Rome the German tribes found little difficulty in taking possession of the peninsula, the Suevi occupying Galicia, the Alani Portugal, and the Vandals Andalusia. The Romans appealed for aid to the Visigoths, or western Goths, then in the south of France, and soon these people were masters of the peninsula, Euric, the greatest of their kings, putting an end to Roman rule in 471, and giving a code of laws to Spain. Another famous Gothic king was Leovigild, who held court at Toledo, and was the first to array himself in royal purple and occupy a throne. Among Gothic customs was the execution of such kings as did not please them, and to prevent his own assassination. Leovigild had a number of his nobles put out of the way from time to time, until he felt himself firmly seated in his chair of state, making Toledo his capital.

Standing, as did ancient Rome, on a circle of seven hills, and encompassed on three sides by the Tagus, spanned toward the east by a gigantic Moorish bridge in a single arch with the towers on its ancient ramparts half Gothic, half Arabic, with its forest of church pinnacles and the red walls of its Alcazar towering above city and river, Toledo presents a most picturesque and imposing aspect. Enter, and you find yourself thrown back more than 2,000 years into the heart of the past. Captured by the Romans some two centuries before the Christian era, it became alternately the capital of Visigoth, Moorish, and Spanish kings, the impress left by each still visible, and the religio-military spirit of the stern and somber middle age still conspicuous. As might be expected, there is in its byways and buildings an admixture of the royal and Episcopal; palaces and churches mingling with fortress and convents; high, top-heavy houses with roofs projecting over secretive melancholy streets, with 20,000 somber-visaged inhabitants where in the days of Mohammedan domination were 200,000 contented and prosperous people. On a mountain spur guarding the town is the ruined castle of Cervantes, and at its foot, closed at either end by a gate tower, the bridge of the bridge, as the Alcantara is sometimes called.

At a bend of the terraced road is seen through the transparent atmosphere the Puerto del Sol, a massive Moorish gateway of rich orange-red color embossed with finest tracery. All is of striking aspect as we proceed, the massive and gloomy buildings of mediaeval architecture, in the midst of which is the zocodover, or Moorish plaza, overhung in places by balconies and whence the only wide street leads to the ever obtrusive cathedral with its crowd of filthy, whining beggars! Though to some extent stripped of its decorations, there is still much to admire in this cathedra, with its picturesque interior containing 100 columns, its sculptured figures, its spacious naves, carved stalls, and glass sparkling in ruby, sapphire, and emerald hues. Behind the Puerto del Sol is the church of El Christo de la Luz, once a mosque with low vaulted nave and graceful Moorish arches.

As the light of the Goths expires, the star of the East arises. Roderic, the last of the Gothic kings is betrayed by Count Julian, whose daughter he had seduced, to the Moors, already threatening the portals of the peninsula, and in a battle of seven days duration, fought at Xeres de la Frontera in 711, the Gothic sovereign appearing in an ivory chariot drawn by milk-white mules at the head of 90,000 men, the fate of Spain is determined. Roderic is defeated; the Moors under Taric take possession of the country, and for the next seven centuries Spain is given over to Islamism. Christ the crucified is put away, and the watchword becomes "God is great and Mohammad is his prophet!" Art and architecture change with the mutation of religions; now the cathedral is a mosque only for the mosque in due time to become again a cathedral.

Xeres, that is to say Sherry; or, rather, the first speaking of the word Sherry was an abortive attempt to say Xeres—is today a very wealthy little town, the richest in Spain, if not in the world, for its size, and all by reason of its wines, of which the land thereabouts produces 2,000,000 gallons a year, the choicest vintages when ten or twelve years old selling for as much as $20 a gallon. After saying this, it is barely worthwhile to speak of the woolen stuffs and the morocco there manufactured, or of the grain there grown and exported. The wine interest is mainly in the hands of foreigners; and glory enough it is for one little town to make the good liquor which connoisseurs everywhere like so well to drink.

After gaining the victory over Roderic, Taric somewhat exceeded the authority given him by his master Musa, chief general of the Muslim forces in Africa, taking possession of Seville, Merida, and other cities; but was not severely censured for his transgression. Malaga offered no resistance; Granada was taken by storm; Cordova fell after feeble resistance, and in five years the entire peninsula, with the exception of Asturia, Cantabria, and Navarre, came under the new domination. At first the conquered country belonged to the caliphate of Baghdad; but in 756 an independent caliphate was established at Cordova by Abdurrahman I, and under the third Abdurrahman, and his son Hakem II, attained to great prosperity.

The old towns of Spain have each its several histories. In Roman Cordova, for example, were born Seneca and the poet Lucan; Arabian Córdova was the rival of Baghdad and Damascus, the capital of the Ommiades, the birthplace of Avenzour and Averroes, the cradle of captains, the nurse of science, and for three centuries the home of wealth, learning, and refinement.

Spanish Córdova, Living largely on the glories of what had gone before, brought forth Juan de Mena, Ambrosio Morales, and the great captain, Gonzalez. It is today a city of the past, a city dead but not buried; grass grows in the streets, and where were formerly 200,000 bright and active minds, 40,000 dull-witted citizens doze away their harmless lives. Of all its ancient glories there remains little of

mark except the mosque, which in some respects is unrivalled. The building was founded, it is said, in 786 by the first Abdurrahman, who worked at it with his own hands for an hour every day and spent thereon 100,000 pieces of gold. It was intended to rival the mosque at Baghdad in architectural and decorative scheme, and successive sultans contributed freely for its construction and support. La Mezquita, it is called, from the Arabic mezgad, to worship. The site was first occupied by a Roman temple of Janus; then by a cathedral, which became a mosque, afterward to be again transformed into a cathedral. The Arabs were more tolerant of the faith of their vanquished foes than the Christians later proved themselves to be. When in the eighth century the Moors took Córdova, and found there this cathedral, they deprived the Christians of only half their place of worship, leaving them to use the remainder as they chose. Later, wishing to make of it a beautiful temple, they paid them well for their portion, enough indeed wherewith to build a better church elsewhere.

Córdova has now some 50,000 inhabitants; when the Moors were in possession the population was 1,000,000, with hundreds of mosques, 28 suburbs, 113,000 houses, and 1,000 public baths. Among royal abodes were the palace of Contentment, the palace of Flowers, and the palace of Lovers; there were also a thousand mansions belonging to the rich and noble, some of them opening on the river on one side and with a garden on the other; not a few being connected with the sultan's mosque by vaulted passages, carpeted and lighted by jeweled lamps, while the ceilings of others rested on columns of marble or porphyry. It is said that on the palace which Abdurrahman built for his best beloved, Zahra, 10,000 men and 4,000 horses labored for a quarter of a century. There were 15,000 bronze doors covered with silken portieres, and in the room called the caliphs hall was a lake of quicksilver of dazzling brilliance Zahra's servants numbering 10,000 males and 6,000 females. The throne was resplendent with gold and gems; Persian rugs covered the mosaic floors, and around the main edifices were 1,000 pavilions and terraced gardens.

A native is rich with very little in Córdova; a few pesetas will buy him dried fish and oranges for a month, and the king can find no greater comfort than hundreds of beggars derive from sunning themselves in the alameda, or in the court of the mosque, where for 900 years has sparkled the fountain which waters the tall cypresses and palms. One may still lose oneself in the interior of this massive if care be not taken; of the forest of pillars, pile 1,200 in number, of jasper marble and porphyry, which originally separated the 40 or 50 transverse naves, 1,000 still remain. In the little Ceca chapel, under a shell-like roof carved from a single block of marble and adorned with mosaics sent by Romanus II from Constantinople was kept the Koran; and nearby, paved with silver, was the chapel of the Maksurah, where the caliph worshipped. There were many beautiful and holy things in this temple when the Muslims were there, one being a stand for the Koran, costing, it is said, a sum equal to $5,000,000, as money is counted at the present day.

The intelligent reader will doubtless form his own opinion as to the truth of these Arabian stories; but certain it is that at this period luxurious living readied an extreme point; for here were present all the conditions of luxury and excess, —money, power, beautiful women, passions with all the means at hand for their utmost gratification, art science and learning; in a word, material for the complete indulgence of every appetite, physical or intellectual.

Abdurrahman I was a hard worker, and became a very rich man; indeed all Spain was his or as much of it as he chose to take, the gold of Jew or Christian being equally at his disposal. He loved poetry as

well as money, and gave himself to works of public utility, building dykes along the Guadalquiver, and planting in Spain the date-palm and other trees of oriental origin.

Hakem II, son and successor of Abdurrahman III, who reigned at Cordova in true oriental state, was a learned man and a patron of literature, having agents at Damascus Cairo and Baghdad who bought or copied all the best works that could be found. A portion of his office was occupied as library and workshop, and filled with copyists illuminators and binders. His volumes numbered 400,000, and 44 others were filled with the catalogue. Schools were established; and the university of Cordova, where were taught Arabian jurisprudence, Islamism, and poetry, became famed throughout the east as well as in the west. For several centuries the peninsula prospered under Saracen domination. Art and science went hand in hand with commerce and agriculture, and so famous became the educational institutions of the Spanish Mohammedans that students flocked to their colleges from every quarter of Europe. In 1031, with the deposition of Hakem III, the decline of the caliphate began, the former provinces becoming independent kingdoms, of which there were twenty, those of Toledo, Saragossa, Granada, Seville, Cordova, and Valencia being among the number.

As the Greeks brought culture into Italy, so the Arabs brought learning into Spain. Besides law, theology, poetry, art, and architecture, the latter were well advanced in all the sciences. At Seville, in 1196, was erected by Geber the first astronomical observatory of which we have authentic record. Among other branches, his countrymen—though whether Geber was an Arabian is a matter of dispute—were skilled in mathematics, hydraulics, medicine, metallurgy, and chemistry. They constructed great systems of irrigation and were deft workers in gold, silver, copper, steel, and porcelain. At Cordova they tanned leather with pomegranate rind, and this was highly valued. But in nothing were the Arabs so expert as in architecture; for not satisfied with what they already knew when they set forth on their campaigns, the grand and beautiful buildings found in conquered cities incited them to build others yet grander and more beautiful, the nations amply sufficing means obtained from the subjugation of wealth for the gratification of their tastes. Moreover, the foremost architects and artisans of the foremost nations, Grecian Persian Syrian, were ever at their command; hence the splendid specimens of Muslim art seen in the palaces and mosques of Mecca and Medina, Jerusalem and Damascus, Constantinople and Granada.

The country between Cordova and Malaga is fertile, producing in abundance; hence and for other reasons the latter is a great and prosperous city, its exports of wine and raisins being especially large. In the alameda is a fountain brought by Charles V from Genoa, and a Graeco-Roman cathedral, built in the sixteenth century, stands on the site of a mosque near the Moorish quarter, in which is also the castle of Gibralfaro. As in other opulent cities of southern Europe and the East, where the inhabitants are thriftless lazy and improvident, commerce and manufactures are mainly in the hands of foreigners, who become wealthy and build for themselves elegant homes in the most desirable quarters.

As it comes to us in the sober narrative of history it is difficult to believe the account given of the development of commerce and industries, and the gathering of riches by the Muslims during the earlier part of their occupation. A country which today has but a scant population of 17,000,000 at most, had in the time of Augustus 70,000,000, and under the Arabs 100,000,000. The state revenues of the latter were equivalent to 540,000,000; there were thousands of silk and cotton factories; indigo and cochineal were cultivated; gold was taken from the Darro, coral from the coast of Andalusia, and

pearls from Tarragona. Agriculture and stock raising assumed greater proportions even than mining and manufactures. A thousand cities flourished all over the land, and the smaller towns no man could number. Twelve thousand men in costly array, glittering in steel and gold, constituted the caliph's body guard.

While the Muslims are thus fattening on the fertile fields of Spain, wrapped in the enervating luxury which always precedes a nation's downfall, a few patriots under Pelayo still retain their nationality in the fastnesses of the Pyrenees. Limited at first to Oviedo, their kingdom is enlarged by the conquest of Galicia, with portions of Leon and Castile by Alfonso the Catholic, who thus becomes king of Austrias. Other small kingdoms spring up in the Northern provinces, as those of Leon, Navarre, and Catalonia, and later, Castile, Aragon, and Portugal. These and others at times uniting to fight the Moors, though more often making war on each other, gradually force southward the Saracens, enlarge the Christian dominion, and wrest piece by piece their native land from infidel rule. After a great victory gained over the Almohades at Tolosa by the united Christian powers under the leadership of Alfonso IX of Castile, only Cordova and Granada are left to the Moors. Finally by the union of Ferdinand of Aragon with Isabella of Castile all Christian Spain is united into one kingdom.

While Christian and Muslim were thus engaged in the long struggle which was to determine forever the fate of Islam in Europe, all over the land cities and provinces were subject, as elsewhere, to the ebb and flow of fortune. Though dating back to earliest times, Barcelona is in aspect and character a modern rather than an ancient city, one of the few really prosperous and progressive towns in Spain; and this not because it is the capital of a province, the see of a bishop, and the residence of a captain-general, nor because of its university, its colleges, hospitals orphanages, and other charitable institutions; but on account of its factories, especially of its manufactories of cotton, wool, and silk, causing the place to rank for many centuries as the commercial and industrial center of eastern Spain.

Exceedingly rich also in earlier days was Alcala de Henares, with its 38 churches, its university rivaling in reputation and learning that of Salamanca, and its 19 colleges, among them San Ildefonso, founded by Cardinal Ximenes, with patios in Doric, Ionic, and Berruguete styles, a half Gothic, half Moorish chapel. Here was printed, at a cost of 52,000 ducats, the polyglot Bible known as the Complutensian. Though numbered with the cities of the past, Alcala still lives as the birthplace of Cervantes, the day being the 9th of October 1547, this fact being well established notwithstanding that the honor is claimed by eight other cities, Seville, Toledo and Madrid, among the number.

Then there is Burgos, the former capital of Old Castile, the city of the Cid, the city of ancient legends, with a weird uncanny past and a moldy present. Everywhere are pointed arches, gates of pilgrimage and pardon, antique doorways, statues and seraphs; but most remarkable of allis the cathedral with its clustered spires and pinnacles, built in the most florid of Gothic styles and more than three centuries in the building. Though with a population diminished from 80,000 to less than 30,000, it has still a considerable trade, with exports of linens and woolens fashioned in imitation of English goods.

High in the pines under Guadarrama, and resting on the slope of the sierra, is the real sitio of La Granja, upon which Philip V spent some millions of pesos, and where, let us hope, he passed some happy days—if monarchs are ever happy. A pretty picture is this airy palace, a veritable chateau en Espagne, with its cluster of roof-points, its balconies and fountains its classic Corinthian columns, and a garden sportive with graces and goddesses in marble and bronze.

Avila has streets of quaint old houses, little changed since Saracenic times, some of them handsomely ornamented, but for the most part plain, though occupied by wealthy families. There is a Gothic cathedral erected early in the twelfth century and there are the usual churches with the usual apses and arches, lofty pinnacles, and stained-glass windows in doubtful taste. Still is preserved the ancient wall, with towers and breastwork, though much of the town is built outside its circuit. Beyond is a desert, or little more than a desert, affording scant means of support for the present population of 7,000 or 8,000 souls.

In the midst of Catalonian olive orchards stands Lerida, a picturesque pile of purple rock, 300 feet high, crowned by fortifications of heavy masonry, by a cathedral with lofty spire and cloistered arches, and at the base a line of antiquated houses, a quay, an old mill, and a yellow stone bridge,—a somewhat desolate, but to the artist a quaint and pleasing picture.

Tarragona has a fine cathedral, built in the years between 1089 to 1131, with rose windows and Romanesque arches; there are also the chapel of Santa Tecla, and the cloister, which with its arcaded court and garden is most attractive of all. On the shore of the sea, three miles away, is, as tradition relates, the tomb of the Scipios, a massive Roman structure like some of which traces are still to be found on the Appian Way. There are here about the remains of many Roman monuments, buildings, bridges, and aqueducts, among others fragments of the palace which Augustus occupied a few years before the birth of Christ.

Among the mountains near Tarragona, on a lonely spot, where, as was said, mystic lights revealed the resting place of a pious hermit who there had taken refuge from the Moors, was founded in 1140, by Ramon Berenger IV, king of Aragon, what became in time one of the largest religious establishments in the world.

Poblet was the hermit's name, and the place became known as the convent of Poblet. It was situated in a solitary dell amid tangled woods overhanging craggy hills, between which and the buildings were orange groves whose gnarled and venerable trees were twisted into fantastic forms. Succeeding monarchs each added something to the extent and magnificence of the buildings, or to the wealth and beauty of the place. It became to them not merely a royal retreat for penitential meditation and prayer, where for a time conventual life might be enjoyed with profit to the soul, but presently arose royal tombs on either side of the choir, and around the principal cloister dukes and grandees occupied each his chosen niche. Marquises and counts had burial ground assigned them around the apse; the place for famous warriors was in the nave and anti-chapel; a portion of the transept was dedicated to the bishops of Lerida and Tarragona; while the abbots of Poblet, mightier and more honored than archbishop, prince, or potentate, reserved for themselves the chapter-house, their imposing effigies significant of strength and dignity. But in this Westminster abbey thus planted among the mountains of Spain, shrine or cemetery was not all nor the greater part of Poblet. It was a place of happiness for the living, as well as of rest for the dead. Its fame was noised abroad, and its wealth and magnificence increased, until among the regular occupants were numbered 500 monks of St. Bernard, who arrayed themselves in costliest robes and fed on the fat of the land. Far and wide extended the conventual domains, and the vestures and church furnishings were the richest that money would purchase. Books were gathered, until the Poblet library became one of the best in Spain. Vineyards were planted on the mountain sides, presses were erected, and great cellars were filled with the vintage which under the name of Priorato was most in favor of all the choice wines of the peninsula.

More and more reserved and exclusive became these monks of Poblet. The number was reduced from 500 to 66, and none were admitted to the fraternity save those of noble blood. Each had two servants and all rode on milk-white mules, the latter being in the eyes of the vulgar almost as sacred as their riders; for such animals commanded enormous prices, and Spain was ransacked to secure them. Traffic and the useful arts were the handmaids of religion, and the holy men were served by those who ministered to their needs. Hospitals and houses of entertainment were erected for the use of pilgrims; likewise a palace for sovereigns, grandees, and men of royal lineage; for these also had bodies to feed and souls to save in common with the poor and sick and suffering.

Thus were made gorgeous the appendages of righteousness, as immorality and crime came on apace under cover of still more stringent rules, somber sanctimoniousness and external formalities being but a cloak for the raging fires of passion within. Sovereigns of sovereigns dictators to monarchs and princes, the holy men of Poblet became, yet more autocratic as the wealth, power, and popularity of their convent increased, issuing their commands to rich and poor alike as from God's vicegerents on earth.

And all the while their rules were apparently of the strictest; for herein lay one element of their strength and influence the restrictions, and penances laid upon themselves being likewise imposed upon others; so that the dictatorial spirit grew upon these pious power-loving mortals, even politics and governments being largely influenced by them. Then darker and yet more sinister became their purposes and deeds, until presently it was noticed that some who entered the convent were never known to leave it. Where were they and what were these fearsome mysteries about which men were whispering? The wars of Don Carlos brought on the climax; among the monks of Poblet dissensions and divisions arose; some were Carlists, some for the opposition, and all were ready for the agencies of knives, dungeons, and tortures. Things went from bad to worse until the country around became thoroughly aroused, and men of authority and power were filled with horrible suspicions.

And so one night there came to the convent a roaring multitude of country people, towns-folk, and men at arms, and breaking down the doors they poured through court and cloisters into the rack-rooms and dungeons, where they found human bones and emaciated forms, with such dreadful enginery of torture and cruelty as set them wild with fury. “To the ground with the accursed pile!” they cried, and straightway the work of demolition began, and ceased not until proud Poblet, with all its wealth of luxury and beauty strewed the convent grounds. Books were brought out and burned; shrines and statues, pictures altar-pieces and priceless works of art and ornament fell under the general demolition, the destruction being finished by setting fire to the buildings, and burning all that could be consumed.

What now remains? The very abomination of desolation, says Augustus Hare. The old olive trees still line the rugged rock-hewn way of approach, and beyond projecting buttresses are the hills glowing in perennial verdure. Tall crosses rise on lofty pedestals, stained with golden lichen, myrtle, and lentisck, while at the cross-ways are groups of saintly figures amid the solitary groves where friars loved to walk. An avenue with broken seats at intervals on either side leads up to the convent walls, a clear sparkling mountain torrent surging by its side, overflowing a basin filled with ferns and tall water plants. After skirting the enclosure for some distance, the visitor is admitted by an ancient gateway to the ruins of the interior where the story of the past is written on rifted walls filled with fragments of sculpture of rare beauty and delicacy; on the ruins of spacious courts, of numberless cloisters, of

broken marble pillars and stonework with exquisite tracery everywhere strewing the ground. Still may be seen the little decorated chapel of St. George; the remains of frescoes telling of the Moorish invasion; towers, broken statues, and the bare skeleton of the hospital, while around the tombs of kings donkeys have now their stalls.

One can see much of Spain in Saragossa. Though modernized in places there are still tin marks of mediaeval Christianity intermingled with traces of Muslim supremacy, relics of the auto-da-fé and inquisition standing forth in unpleasant contrast with the milder memorials of the followers of the prophet. Crossing the bridge from the grand plaza, there is on the left the cathedral of El Seo, which with the archiepiscopal palace and the lonja, or exchange, occupy conspicuous places in the square. Entering from the yellow sunlight the somber vaults of the cathedral, visions of beauty and grandeur float before the eye as though descending from another sphere. Under Gothic arches and among shrines and altars are renaissance sculptures with bas-reliefs and paintings by the great masters. More celebrated even than the Seo is Nuestra Dama del Pilar, with its Byzantine suggestions, yellow varnished tiles, and domes resplendent in orange green and blue. The shrine, to which thousands of pilgrims resort, is of itself a temple within a temple, where the virgin appears descending on a pillar, arrayed in velvet and brocade and resplendent in gold and diamonds. The streets, market-places, statues, and towers are unique, and life in this old Aragonese town is seen as only it can be seen in Spain. In the suburbs is Aljaferia, the ancient palace of the kings of Aragon, now used as a barrack, the kitchen having been once a Moorish pavilion with beautiful arabesques, and the boot-room the chamber where Isabella, queen of Portugal, was born. The palace and prison of the inquisition were likewise a part of this now dishonored pile, whence thousands of human souls have been sent with cries of agony into the unknown.

In the old Castilian town of Segovia, with its cathedral of many pinnacles and its ancient amphitheater, a Trajan aqueduct of gray and black granite blocks cemented together and with arches a hundred feet high attest the solidity of Roman workmanship.

Near the convent of San Gabriel this in aqueduct serves as a bridge, underlying which are 320 arches, double rows, one superimposed upon the other some of them, having been destroyed when the Saracens plundered Segovia. In 1483 Isabella ordered them to be restored; but even now the Roman arches can readily be distinguished from the Spanish, owing to the inferiority of the latter. It is a crowded town red-roofed houses jostling each other, and all intermingled with old Romanesque churches and high lofty towers. In 1494 the marquis de Villena built at the end of the alameda the Geronimite monastery of El Parral, in token of gratitude to heaven for enabling him to overcome three antagonists at once in a duel fought upon its site. It is regarded as one of the most remarkable buildings in Spain; and though parts of it have disappeared through vandalism and decay, there still remain the carved pulpit of the refectory, the cloisters, and a room fitted up as a pantheon, filled with monuments of legendary and local lore. In 1204 was erected by Honorius II the Vera Cruz, copied after the church of the holy sepulcher in Jerusalem. Not far from the site of the old alcazar, whence Isabella went forth to be proclaimed queen of Castile, are the tower of San Esteban and the cathedral, begun in 1525, and one of the last of the great Gothic structures of Spain. As with many other cities, Segovia under Saracenic rule was rich and prosperous; at one time 25,000 pieces of cloth were made there annually, giving employment to 14,000 workmen; now not more than 200 pieces are manufactured, and the place is but a shadow of its former Self.

The men were likewise brilliantly arrayed in clothes of finest finish, their scimitars and armor chased and enameled, their daggers and sword-blades of Damascus steel, and their horses richly caparisoned.

It is on the purple-clad slope of the Sierra Nevada, about 2,500 feet above the sea that this city stands; a city in whose history is much romance and in whose study is much of pleasure and profit. Well built houses of antique oriental construction line the narrow, crooked streets which lead from the principal plazas. After the Alhambra, of which I will presently speak further, the Moorish monuments in Granada are the old Saracenic post-office, the casa del Carbon, now a coal depot but once a beautiful structure with handsome Moorish gate; and the ancient silk market, with its columns and arcades producing a charming effect. Conspicuous among the buildings are Nuestra Senora de las Augustias, with its stately towers and richly decorated altar; the Gothic cathedral, embellished with jasper and colored marble, and the monastery of San Geronimo.

As early as the year 767 a castle was built there by Ibu-Abdurrahman and in 1238 Ibrahim Ben Akmar, under the title of Mohammed I, founded the kingdom of Granada, which endured for two and a half centuries, or until the expulsion of the Moors by the catholic sovereigns. Within the lines marked out by the founder, this latter prince began the erection of the Alhambra, Kasr-al-hamra, or the Red Castle, so- called presumably from the red earth of which the bricks were made. The work was continued by succeeding rulers until 1333, when it was completed by Yusuf I; and then it was that Granada reached the height of her power and prosperity. Upon the fall of Cordova and Seville, 200,000 families took refuge there, and to these are probably due in part that internal dissension which rendered possible the conquest of Granada.

Few of the world's great monuments have held the interest and admiration of mankind so long and completely as the Alhambra. Elevated above the sultry plain, shaded by noble groves of elm, built in the most sumptuous of oriental designs and yet in exquisite taste, embowered in fragrant gardens made musical by the song of nightingales and the murmur of fountains, it would seem that if only walls could keep out wars and luxury could bring content, here indeed was a glimpse of paradise such as should satisfy Mohammedan or Christian. On every side broad avenues cross each other and climb the wooded slopes, while stretches of lawn and bubbling brooks impart a freshness and fragrance to the air. The buildings, as they stand today, consist of four distinct palaces, three of them the old Moorish structures, and one, begun but never finished, belonging to the days of Charles V.

Among the many towers were the Vermilion towers, the tower of the Infanta, the tower of the Vigil, of the Beaks, and of the Seven Portals, through which Boabdil, last of the Saracen rulers in Spain, took his departure as the Spanish army entered.

Approaching the Alhambra under a canopy of elms, along one of the several terraces on which the structure rests, entrance is made by the gate of Justice, or Babu shariah, the gate of the Law, as the Arabs called it, because, like the Jewish sovereigns, Moorish monarchs here settled disputes arising among their people. It was built in 1348 by Abu el walid Yusuf, who wrote over the inner arch, "May the All-powerful make this gate a bulwark of protection, and record its erection among the imperishable actions of the just."

By a narrow vaulted passage is reached the upper esplanade, or place of Cisterns, with yellow towers enclosing the citadel on the left, and on the right the bright yellow stone structure of the Spanish monarch, the interior a circular court, the exterior a quadrangle, and beyond gardens and trees, a

church convent and mosque, and a miniature town, all within the tower girdled precincts of the castellated hill. In the court of myrtles, paved in blue and white, and in the center of which is a pool with goldfish, are some of the most exquisite specimens of Arabian art, their charms intensified by the luminous air. The largest patio is the court of Ambassadors, conspicuous for its arches and decorations. It is about 40 feet square, and the vaulted ceiling, of cedar incrusted with mother-of-pearl, is 75 feet high, filling the base of the tower of Comares, 200 feet in height, beneath whose, shadow runs the Darro, roaring down the sierra with the fury of a mountain torrent. But most exquisite of all, and a masterpiece of Moorish art, is the court of Lions, surrounded by a portico with 124 columns, a marvel of elegance and beauty. Open arcades of graceful mould and airy lightness are supported by two pavilions projecting into the patio. Opening upon this court are several chambers of medium size—the hall of Two Sisters, the hall of the Abencerrages, the private apartments of the sultan; also the baths of the sultanas and the pavilion of the queen. The delicacy of finish in this part of the palace is exceeded only by the profusion of its decorations. Embroideries with interlacing designs emerging one out of another without beginning or end, in every pattern and color, cover walls, arches, gates, windows, and friezes.

The Alhambra is an oriental dream, a vision of eastern art and architecture nestling in this elevated foothill of the snowy sierra. The sunlight is rendered opaque and tremulous, the massive walls and narrow windows subduing the heat and light, which nevertheless make luminous the fountains. It is characteristic of eastern architecture to invent contrivances for keeping out the fierce rays of the sun, while providing space for cooling waters and fragrant flowers. In the ruins of Theban palaces the private apartments of sovereigns may be discovered by their narrow limits, low ceilings, and narrow windows; but Thebes was outdone by Granada in the blending of symmetry, grandeur, and wealth of decoration, united with comfort and luxury.

The principal Moorish street of Granada is El Zacatin, and near it are two narrow passageways, embellished in sculpture and stucco work and called El Alcaiceria, or the silk bazaar. The first archbishop of Granada was Isabella's confessor, Talavera, by whom was built in 1497 the church of San Geronimo for the purpose of converting the Moors. The Generalife, or architect's garden, as the word implies, was so-called by its original owner, an inspector of public works. It was afterward purchased and turned into a pleasure house by one of the Moorish monarchs. On the further side of the Darro are the quarters of the gypsies, whose houses are excavations in the rocks on the southern side of the hill of Albaicin.

Muley Abul Hassan ruled in Granada when in 1476 Ferdinand sent Juan de Vera to demand the annual tribute which had not been remitted of late. The kingdom then consisted of fourteen cities and several hundred fortified castles, so that Abul Hassan felt himself strong enough to defy the sovereign of Castile. Thus when Juan de Vera brought back the message of the ruler of the Moors, "Tell your master that they who pay tribute are dead; the mints of Granada now coin only swords," Ferdinand replied, "I will pick the seeds from this pomegranate one by one," Granada signifying the pomegranate, and the seeds the fortified castles.

This having been done, Muley Abul Hassan and Malaga being among the picked pomegranate seeds, in 1492 Ferdinand and Isabella appeared with their army before the walls of Granada to receive the keys of the citadel from Boabdil el Chiquito.

The terms of capitulation were that Christian captives should be liberated, and the Moors become the subjects of Castile, to be governed by their own cadis, protected as to their prosperity and religion, and exempt from tribute for three years, after which they should pay only the same as to their former rulers, whosoever might desire to depart receiving free passage to Africa.

At the portal of the Seven Floors, as he came forth amid thundering of cannon into the presence of a vast multitude where mounted on richly caparisoned steeds were Ferdinand and Isabella, Boabdil said, as he presented the keys, "Thus ends the Arabian empire in Spain; God is great! Remember, O king, your promises." How the Spanish sovereigns kept their pledges history relates. Christian writers have stamped the Moor as cowardly, and so perhaps he was; but rather should we call him sick at heart on leaving home and country; for had not this beautiful land been his and his people's for nearly eight hundred years, a longer period than the Spanish nation had existed prior to the coming of the Moors? On leaving the palace forever, while turning to look upon it for the last time, he exclaimed, as the tears sprang to his eyes, "Allah; alas! it is the will of Allah; when was misfortune like mine?" Replied the mother, made of sterner stuff, "You do well, indeed, to weep like a woman for what you could not defend like a man!"

Two important events occurred while the Spanish sovereigns were at Granada; one was an edict expelling the Jews, and the other the agreement with Columbus concerning his voyage westward. The Jews were rich; Ferdinand and Isabella needed money, and it is never difficult to bring false charges or to reconcile the conscience to any wrong committed in the name of right. It was said that the Jews kidnapped Christian children; Isabella did not believe it when 30,000 ducats were offered by the Jews for permission to remain. She did not believe it even when her confessor Torquemada rushed into the presence of the sovereigns, saying. "Judas sold his master for thirty pieces; you would sell him for thirty thousand." Nevertheless she signed the decree for their expulsion, as did also her husband. A yet more serious charge against the two sovereigns was the breaking of their pledge to the Moors, at the instigation of Ximines. After all the promises made, they were coolly informed that they must become Christians or leave the country; whereupon 3,000,000 took their departure as the record stands, between 1492 and 1610. Neither Jew nor Moor were permitted t o take with them their money or other valuables, and many thousands both of Moors and Jews were burned at the stake by order of Ferdinand and Isabella and their successors. Yet these unfortunates suffered for no crime; they were obedient, God fearing, and hard working men, the best of farmers and artisan, and were more learned and refined than those who put them to death. Saving faith! which was the more efficacious, the faith of those who persecuted or of those who were persecuted for righteousness sake?

After all that has appeared on the pages of history as to the abominations of the Arabs, their superstitions and polygamies, their Mecca pilgrimages and holy-sepulcher holding, much may be said in their favor. Compare Ibu-Abdurrahman's Alhambra with the Escurial of Philip II; the Cordova of Abdurrahman the Great with the Madrid of Charles V. The Spanish kings, together with their people, fattened on the gold of America and fell into decay; the Muslims, it is true, had fattened and died before them, but their glory remains in visible form, in the libraries they founded, the schools they established, and the palaces and temples which they erected. But for their paving the way in promoting agriculture, commerce, and manufactures, and science, there would have been small achievements to record of the Spaniards who came after them.

It likewise appears from the written pages even of European history that the plighted word, the charity and integrity of the Mohammedan were superior to those of the Christian. How wise and humane the policy of these followers of the prophet; how tolerant to the Spanish Christians and also to the Jews, who were left to worship in their own way! No sooner had the Spaniards acquired the supremacy than their course was marked by fraud and treachery. Not only Moorish religion but Moorish civilization must be eradicated. Following the decree of 1492, aimed specially at the Jews, ordering all who did not become Christians to leave Spain in four months and forbidding them to carry away even their gold and silver, an edict which, according to the Spanish historian. Mariana, drove 50,000 families into exile, came the persecution of the Arabs, who at the capitulation of Granada had been guaranteed all their civil rights, with freedom to worship and non-interference with their customs. But with such monarchs as Ferdinand, and Isabella and Philip, promises went for little. First the Moors were restricted in their worship; then in their language their dress, and their amusements. It was part of the life of these sovereigns, of almost all sovereigns of that day and the days and years which followed, so to dictate and dominate as to make their people unhappy. The very fact that they lived honestly, labored faithfully, and were prosperous counted against them. And so the third Philip in 1609 drove out the Moors, huddled them on board ship and cast them on desolate shores where many met their death. From the single province of Valencia went 140,000; Catalonia was well nigh depopulated; the Sierra Morena, covered with vineyards and cornfields, became a wilderness. To this day the curse of it remains; between Malaga and Granada, and all along the Guadalquiver where were thousands of villages and tens of thousands of happy homes there remain only a few wretched villages.

The successful expedition of Columbus was followed by the swarming of adventurers to the New World, who flooded Spain with the gold they had gathered. The slave trade was also profitable, as was likewise the conversion of the Indians. Kings, clergy, grandees, and dukes became exceedingly rich. The higher nobility had large landed estates, many towns and villages, and large incomes. The half million dollars a year which the duke of Alva's income equaled, would buy as much as two millions at the present day. Gonsalvo de Cordova’s income, or rather that of his family, was almost as large, and that of the duke of Medina Sidonia was larger. The duke of Infantado could bring 30,000 of his own men into the field, while the archbishop of Toledo's revenue was equal to about $4,000,000 as now is the purchasing power of money.

The Moors had lived extravagantly, but the Spaniards sought to outdo them. Rich clothing and the richest of fare, a profusion of costly jewels, and sumptuous dwellings with delicate carvings and mosaic floors, resulted from the conquests of Pizarro and Cortes.

With all their faults and follies, Ferdinand Charles and Philip were astute and powerful sovereigns, and under their rule Spain became very great. But a century of inactivity luxury and vice is more than any nation can endure without decay or death. It is the old story, with the inevitable result. Had Spain kept her Jews and Moors, kept in thriving condition her agriculture and manufactures, kept free her commerce, and been governed less by greed and fanaticism, she might have enjoyed a longer and a nobler supremacy. As it was, decadence began before the death of Philip, who indeed was somewhat decayed himself when death delivered the world of him. Under the third Philip, who was imbecile as well as fanatical, enjoying all his predecessor's vices with none of his virtues, the country lapsed into a state of absolute decrepitude. The absence of that healthful bloodletting which the Moors had so long administered, and the wars of Charles V with France Germany and the Netherlands, with Italy Tunis

and Algiers had kept from too sudden stoppage, was one cause of disease. Then Philip III found 600,000 Moors who had been overlooked in the previous exterminations, and these he drove out, leaving the industries of Spain to the worthless remnant of the population. Philip IV lost Portugal; Germany and the Netherlands followed; then Naples and Sicily; then Sardinia, Parma, and Milan; then Gibraltar and Minorca, and finally most of India and America,—in all a quarter of the world, at least. But these losses of Spain cannot be considered other than as a great gain to the world at large and the change came none too soon.

It is neither pleasurable nor profitable to follow the footsteps of a great nation in its decline. As notable specimens of folly, posterity points to the Escorial and the Armada. While Madrid was yet a hamlet, Burgos, Toledo, Seville, and Valladolid had been each in turn the Spanish capital. While Charles V was yet a boy, Cardinal Ximenes carried the government to Madrid, and later Philip II held court there, building his Escorial not far away, because, ill-natured people say, those were the most unpleasant places in Spain for the purpose.

Spain has many interesting cities; but one of the least picturesque of all is Madrid, chosen as the capital because of the gout of Charles V. From the cowardice of Philip sprang the Escorial, and here we have the origin of these historic places.

Few subjects in history have been more severely criticized than Philip and his Escorial. Why should a monarch of limitless resources choose so desolate a spot for the site of a pleasure palace? asks one. Another calls it the architectural nightmare which Charles IV wisely declined to inhabit, building instead a pretty little toy palace of his own. Even the gardens with their box terraces show more of architecture than of flowers, while the books in the library are arranged with their backs turned to the wall. Doubtless Philips greatest pleasure was in his heavenly meditations, for he was ever on serious thoughts intent, and as somber minded as he was selfish.

If by his subjects esteemed as a great monarch, he was not, as I have intimated, a great warrior. While the battle of St. Quentin was raging, for instance, instead of joining in the fray, he found it more to his taste to remain at home and make vows to the virgin,—hence the origin of the Escorial, at once a royal palace and a monastery, for Philip in remembering his maker never forgot himself. It is an imposing pile, standing in grim solitude at the foot of the sierra de Guadarma, fourteen leagues west of Madrid, 3,683 feet above sea level, and was pronounced on its completion the eighth wonder of the world. Lorenzo—he who was roasted—was the saint to whom Philip believed himself specially indebted for victory; hence the stupendous mass of buildings with surpassing external decorations took the form of a gridiron, the interior being riddled with square courts. About a mile in circumference, the structure has 1,860 rooms, 12.000 doors and windows, 80 flights of stairs, 73 fountains, 48 wine cellars, 51 bells, 8 organs, and 1,560 oil and fresco paintings. There are also a library, a college, and the mausoleum of the Austrian and Bourbon kings of Spain. Into the wall near the top of one of the buildings the king had inserted a plaque of gold, three feet square and an inch in thickness, where age after age it glitters in the sun to the confusion of all who declared that this massive pile would be the builder's ruin. The convent, now deserted, was presented by Philip to the Hieronymites, one of the largest and richest of the religious orders in Spain, whose members, under the protection and regulation of St. Jerome and St. Augustine, devoted themselves to the advancement of science and agriculture.

In the midst of gardens and parks, not far from Madrid by rail, appear, like oases in the desert, the two palaces of Aranjuez, one a rambling chateau, the other the casa del Labrador, about a mile distant, made infamous by the doings of Charles III, Maria Louisa, and her lover Godoy.

The low walls of the rooms are hung with elaborate silk embroidery, and in each of the smaller chambers are half a dozen clocks, several of the sovereigns of Spain having been possessed with a mania for timepieces. Aranjuez has been called the Versailles of Madrid; but in truth it is as little like Versailles as Madrid is like Paris. The place is occupied only in the three months of summer, when the grass-grown streets lined by large low houses are alive with the gaiety of court and courtiers.

Under the reign of Charles II, the population of Spain fell in number to 8,000,000, and here is perhaps the most conclusive proof of what has been said, as to the wisdom and polity of the Arabs compared with the Spaniards. The Saracens found the peninsula in the half civilized half developed condition in which the wars and intermixtures of Romans and Goths had left it; they departed leaving a great and prosperous country teeming with beneficent industries, a paradise of luxury wealth and beauty, but sown, alas! with the seeds whose rank and noxious growth has choked to death successive nations.

The present century opens with a war with Portugal, which results in no good to either nation, as is usually the case with European wars, attended as they are with so much suffering and bloodshed, to say nothing of the enormous expense of armies and munitions. Then comes Napoleon from Corsica and overturns the world, a feeble world indeed to be so unhinged, and held prostrate under this little boot-heel. But to the disgraceful treaty of Fontainebleau Spain must submit; French troops are sent to the peninsula, and Brother Joseph becomes king of Spain. After Bonaparte's disaster in Russia, Spain is relieved of French troops, or rather the French are driven by Wellington across the Pyrenees. Attempts to recover the revolted American colonies fail; Florida is sold to the United States for 55,000,000; external wars and internal revolutions continue to occupy attention, and still the wheels of destiny revolve.

The glory of Spain has indeed departed. Why is it so? Will it ever return? The conditions are plainly to be seen; the cause is not difficult to trace; as to the future, the question can best be answered with the answer to other questions. Will the glory of Egypt ever return? When the West shall have become as old as now is the East, will the East then have renewed its youth and be sending antiquarians to study the monuments of the West? Look at Andalusia as it is today, a region that has ever been the garden of Spain, in every respect favored of heaven with soil still so rich that it enriches man with but little care or labor. Along the banks of the Guadalquiver were once 12,000 smiling villages, there are now less than 800. Extensive irrigation and drainage canals constructed by the Arabs have been allowed to go to ruin. In other places the contrast between the present and the past is still more striking, a sterile soil, marsh lands, and miasmas taking the place of productive and populous areas.

Spain's greatness came through the shaping of great events by great men, who nevertheless hindered as well as aided progress. Prince Henry of Portugal and the Genoese sailor did more for Spain than Charles V and his son Philip; yet these monarchs were great as compared with those who succeeded them, though hampering themselves with follies and fanaticisms such as were eventually to undermine the stability of the state. With the expulsion of the Moors and Jews, Ferdinand and Isabella deprived Spain of her best artisans farmers, and men of business. When Philip and his successors restricted the traffic of the colonies to dealings with the mother country, under the

infatuation that to deluge the land with American gold was to establish therein the foundations of wealth and grandeur, they were merely sowing the dragon's teeth of luxury and laziness which were to stifle industry, crush out commerce, and transfer to England those industries which aided in making her one of the greatest of nations.

The short-sighted policy of these rulers over many peoples left to the nation itself no people, no men of brawn and brain to give support to the non-working aristocracy on the one hand and the non-working beggars on the other, no tiers etat, or middle class, made substantial and respectable by intelligence, labor, and economy, such as is to be found in the more progressive of European countries.

While Spain was laying under tribute islands and continents before unknown, but abounding in wealth of precious metals, precious stones, and all the products of tropic and temperate climes, was creating new and unlimited markets for the cloths of Segovia the leather of Cordova the blades of Toledo, and the silks of Seville, her military and political power were such as to make all the world tremble. Eight centuries of fighting at home and abroad, with all the hardening effects of war and self-denial, had made strong the arm of the nation, soon to become weak and nerveless under boundless prosperity. Commerce and manufactures were the first to vanish and then the dominion itself. Spain was ruined by gold, while in, Mexico and Peru adventurers perpetrated in her name atrocities and treacheries such as should make Satan blush, yet sanctioned by Spain which pocketed greedily the reward. The gold-laden galleons from the New World fed the lust of wealth and spread moral and industrial disease throughout the peninsula. Then there were the iniquitous tax of mortmain, the licensed monopolies in favor of the nobility, and the system of migratory flocks and herds which ruined agriculture, all uniting to destroy commerce and manufactures. As a natural sequence what could be expected but social, industrial, and political decadence, a retrogression in art, literature, and intellectual refinement? Here is probably the true reason that all efforts at a republican form of government have proved abortive; for such a government requires an intelligent and dependent middle class, a factor ever the body politic of Spain.

Portugal, the Lusitania of the Romans, was early visited by the Phoenicians, Carthaginians, and Greeks for purposes of trade with the ancient Celtic tribes. In political and international affairs it has usually followed the fortunes of Spain, being sometimes an integral part of that monarchy and sometimes independent. In common with the rest of the world, this country has its attractions, and though poorer than some, it is by no means the poorest of European countries. Lisbon, with its hills and vales, is one of the most picturesque of cities. The praco de Rocio, the praco de Commercio, and praco de Ouro, or place of Gold, are spacious plazas with beautiful public buildings, the second named with one side open to the river. Of striking appearance, occupying the highest point of the city, is the citadel of St. George. The old prisons of the inquisition in the praco de Rocio are now fitted up as offices of the ministry. Besides the residences of the nobility and rich merchants, the basilicas of San Roque and the Coracas de Jesus present an imposing appearance, as do the royal palaces of Ajuda Bemposta, and Nesessidades. Outside the city, on the bank of the Tagus, is the monastery of Belem, built by king Emanuel in 1499, and whose site marks the spot whence Vasco da Gama embarked on the voyage which resulted in the Portuguese occupation of the Indies.

At Evora, the capital of Alemtejo, are Roman antiquities, including a temple of Diana, the present money value of which it were difficult to determine, though doubtless worth something to see and talk about.

Oporto is famous throughout the world for its export of good wine, as a seaport, and as a city of churches. It is built along and back from the banks of the river, and occupies also the slopes of two hills as far as their summits, presenting a pleasing appearance. A quay, two miles in length, also extends along the river. Of eleven public squares the praco de Constituicao and the campo de Cordaria are the largest. Eighty churches, built at various times, are still in existence, while fifteen convents are used for secular purposes. A large suspension bridge attracts notice; also the hospital and various manufactures. Braga has in some antiquities; at Guimaræns is made cutlery and linen, and at Lima are fishing industries, though these might be largely and profitably increased were the people so inclined, for the people of Lima are lacking in enterprise, in common with most of their countrymen.

The Romans held Portugal from it BC 140 until the coming of the Visigoths in the fifth century, the latter being disturbed in their possession by the Arabs, and these yielding finally to Alfonso of Leon and Castile, whose grandson founded the kingdom of Portugal in 1139. By his son and successor Dom Sancho I, the Moors were further humiliated, and the nation raised to wealth and power, which reached its climax under John I, who died in 1433. It is said that at this time there were no people in Europe more enlightened or enterprising than the Portuguese. Under the energetic rule of Prince Henry, son of John I and properly surnamed the Great, arose the spirit of enterprise which prepared for Columbus the path of discovery, and rested not until all the world was laid open to European civilization. The more immediate results of the prince's efforts were the expansion of geographical knowledge, and carrying forward explorations along the African coast, extended during the reign of Dom Emanuel the Fortunate in the voyage round the Cape of Good Hope by Vasco da Gama. Assuming the supremacy in the Indian ocean, by judicious management Portugal was enabled to maintain her hold for nearly a century on all that was best worth possessing on the southern coast of Asia and the eastern coast of Africa. Through the discovery of Brazil by a Portuguese navigator in 1501, she also dominated this vast section of South America for more than 300 years.

In due time came the inevitable decline. In the government the and the weak succeeded the strong, feeble-minded took the place of the wise.

Philip II seized the crown upon the death of Dom Henry in 1580 without direct heirs, and for sixty years the yoke of Spain was worn. Then arose revolt, followed by a long war, and Portugal was again free. The French under Napoleon held the country in 1807, until expelled by Wellington's forces, since which time the spirit of insurrection has not been idle.

Portugal has a population of from three and a half to four millions, though except Lisbon and Oporto there are no cities having more than 20,000 inhabitants. There is much good soil but it is poorly cultivated, owing to the thriftlessness of the people and imperfect implements of husbandry. Citrons, almonds, peaches, figs, and melons spring from the ground spontaneously; wheat wine and olives are staple products; and cornmeal bread and goats milk the common food of the people. Hemp and flax are grown, likewise sugar cane and rice; all the fruits are raised abundantly and of trees there are the cork, bay, licorice, chestnut, myrtle, laurel, and others. Gold and silver were mined during the Roman occupation, and even now a little gold is taken from the beds and banks of streams. There are hot and mineral springs with reputed healing waters; coal and iron are plentiful; copper exists near Oporto

and cinnabar at Couna, besides which lead antimony and plumbago are found in places. Great quantities of salt are exported, and there are quarries of marble, limestone, and other minerals, with beds of porcelain clay. Of the $40,000,000 estimated as the annual value of agricultural products, wine is placed at $12,000,000, grain at $10,000,000, and wool at $7,000,000. Most of the manufacturing is done at Lisbon, and as a rule not on a very large scale. Among the articles produced are cotton and woolen cloths, pottery and porcelain, iron and tin ware, jewelry and silk, glass and paper. Transportation facilities have never been good, poor roads, the absence of canals, and the obstructions in the streams uniting with the general indolence and apathy of the people as barriers to progress and prosperity.

The nobility and aristocracy of Lisbon have their villas in the suburbs, beyond which are picturesque farms and vineyards. The summer they often spend at Cintra, a dozen miles away, near where the Tagus meets the sea. The latter is approached under long arcades of trees, through which appear orchards of lemons and gardens of myrtle and fuchsias. Here on a terraced mountainside overlooking the ocean is the Portuguese Alhambra, palace prison and church, built originally by Moorish sultans, completed by Dom Joas I and Dom Manuel, and occupied with equal pleasure by Muslim and Christian. A clustered pile covering an entire hill, with its mixed Arabian and Portuguese buildings, it is more striking at first view than the Alhambra of Granada. Stretches of deep green verdure are broken by buildings of conventual appearance, the common court being entered by a large gateway and the palace by a flight of stairs. The interior is not gorgeous, though some of the rooms are brilliant in many colors, and in one is a marble mantel fashioned by Michael Angelo. In the palace are the hall of Swans, the hall of Magpies, and the hall of Stags; a garden blooms on the hillside, the entire surface of which is watered by fountains and artificial streams, some of the former with imposing figures and columns.

Not far distant is Mafra. the Escorial of Portugal, once a palace and mausoleum, with marble clocks and bells, with hundreds of rooms and several thousand doors.

Finally it may be said that in Portugal, as well as in Spain, while Christian sovereigns have not been idle in the prosecution of great works, to the Arabs are due the finest monuments significant of wealth, learning, luxury, and refinement.

When in 1432 Portugal took possession of the Azores, or Western islands, they were uninhabited, and even now contain only about 200,000 people, who cultivate sugarcane, coffee, and various fruits, exporting oranges and lemons, coarse linen, salted beef and pork, wine and brandy.

Madeira was occupied by the Portuguese several years before they laid claim to the Azores. The island was then well wooded; hence the name, Madeira, or as in Latin, material, signifying timber. It has a luxurious climate, world-famous for its healing qualities, though not superior to that of California and other health resorts. In the way of agriculture, mining, or manufactures, the 80.000 or 90,000 inhabitants have little to boast of. After wine, for four centuries the chief article of export comes the cultivation of cochineal, introduced as an industry upon the failure of the grape crop from disease in 1852. The isle is rugged, its geologic formation being little else than basaltic rock; but the scenery is grand, the annual rainfall being about 30 inches, and the mercury ranging from 46" to 80”. From a soil not over exuberant, walled in places and terraced to prevent its being washed into the sea, grow, besides the usual grains and vegetables, sugarcane arrowroot and coffee; also nearly every kind of fruit common to temperate climes, together with the orange fig guava mango pineapple and mulberry.

Walnuts are common, and in the mountains are chestnuts, furnishing food for the people. There are no land mammals indigenous to Madeira; but domesticated animals have been introduced to a small extent by the Portuguese, while manufactures consist only of coarse linen and woolen cloth of straw hats, baskets and shoes.

The Canaries, supposed to be the Fortunate islands of the elder Pliny, Plutarch, and Ptolemy, were early occupied by Spain, and have now a population of some 260,000 Spaniards, whose complexions are somewhat darker than with others of their countrymen, either through exposure to the sun, or intermixture with the aboriginal Guanches, now extinct. On the fertile soil are raised in profusion the products of both temperate and tropic zones, among them grain vegetables fruits and tobacco, while of silk and olive oil the yield is also considerable. Until 1853, prior to the grape disease, wine and brandy were largely exported, but the loss has been more than compensated by the introduction of cochineal. Hats and baskets are made of the leaves of the date-palm, and coarse linen silk and woolen fabrics are manufactured for home use.

On the Cape Verde islands, occupied by some 15,000 Portuguese, flourish all the fruits of southern Europe and western Africa, while indigo grows wild. Goats and fowls are prolific, and asses are raised for exportation to the West Indies.

The Balearic Islands have been occupied at various times by the Phoenicians, the Rhodians, and the Carthaginians, not to mention the Romans, Vandals, Goths, and Moors, finally becoming an integral part of the kingdom of Spain. The inhabitants number about 275,000. The soil is fertile and the climate salubrious. The chief products of Majorca and Minorca are grains, fruits, vegetables, and oil, and in the former is a considerable yield of wine and brandy. Both manufactures to a small extent and in both are profitable livestock industries. Ivica is the most productive among the group, but with a scattered and somewhat indolent population.

Miscellany

According to the census taken in 1887, the population of Spain, which since that time has increased but slightly, was 17,565,632, or an average of 88 to the square mile, against 10,061,480 in 1789. At the former date the sexes were about equally divided, but with a slight preponderance of females. Nearly 5,000,000 were engaged in agriculture; less than 250,000 in manufactures, and in trades and arts more than 800,000. There were only five cities with over 100,000 inhabitants,—Madrid, Barcelona, Valencia, Seville, and Malaga, Madrid having 470,000 people, Barcelona 272,000, and the others from 171,000 to 134,000.

In 1889 more than 68 percent of the population could neither read nor write, and this notwithstanding an elaborate system of primary schools, with compulsory education, at least in name. This may be due in part to the small pay of teachers in the primary grades, ranging from $50 to $100 a year. In the budget for 1887 the total sum appropriated to educational purposes was only $355,000, schools being mainly supported by municipalities, which for 1894 contributed in all nearly $5,000,000, or about one-fourth of the sum expended for like purposes in the single state of New York.

Since time immemorial the finances of Spain have been in a disorganized condition, Charles III for instance increasing what was before a heavy national debt to $250,000,000, while under Ferdinand VII the expenditure was $87,500,000, against $50,000,000 of revenue. For four out of the six years ending with 1893 the public outlay exceeded the income, the expenditure for 1892-1893 being $144,000,000, and the revenue $134,500,000. In 1893 the Spanish debt, reduced in amount and consolidated a few years before, by consent of the parties interested, into a series of four percent bonds, exceeded $1,000,000,000, with floating and other indebtedness, including $570,000 due the United States, but never, as it would seem, to be paid, amounting in all to nearly $200,000,000.

In case of war, an army of nearly 1,000,000 men can be mobilized, the regular forces mustering on a peace footing about 120,000 and the remainder consisting of the active and sedentary reserves, though many of these exist only on paper. There are 13 military schools and all over 19 years of age are liable to conscription. In 1893 there were 97 vessels in the Spanish navy, including those in course of construction. Of these only one, the Pelayo, of 9,900 tons displacement, would be ranked by other powers as a battleship; but in Spain heavily armored cruisers are counted as such.

There were nine cruisers of the first class six, of the second and 46 of the third, with two coast-defense vessels and 33 torpedo boats. The number of seamen was 14,000, and of marines 9,000, the total annual expense of army and navy amounting to nearly $30,000,000.

There are probably at the present day in Spain not less than 3,500,000 landed proprietors and tenant farmers, the number being largely increased within recent years, thus giving hopeful prospects to agricultural industries. Their holdings are small for the most part, some paying no more than one real, or twelve cents, a year as land tax, and at least 1,000,000 paying less than 20 reals. About 80 percent of the soil is classed under agricultural and grazing lands with cereals fruits pulse flax and hemp as the leading crops. But the vine is of more importance than all the rest; for in 1890 more than 5,000,000 acres were devoted to viticulture, producing 640,000,000 gallons of wine, in addition to

an enormous quantity of raisins and table grapes. While the yield has since been greatly diminished by disease, it is still on a very considerable scale.

In 1894 no less than 15,000 Spanish mines were registered; but of these not more than 2,000 were worked, the total value of all metallurgical products falling little short of $40,000,000. Iron, copper, lead and quicksilver are the products of most economic value, the ores being largely exported in addition to those which are used for home manufacture. Of iron ore the yield is estimated at 5,500,000 tons, of copper ore 3,500,000, and of lead and argentiferous galena the output is valued at $13,000,000. While the mining industries of Spain are sufficient to give employment to 50,000 or 60,000 men, they are as yet but partially developed; for except as to coal, Spain is probably the richest mineral country in Europe, and one of the richest in the world.

The total of Spanish exports for 1893 amounted to $120,000,000 and of imports to $130,000,000, showing in both cases a reduction of nearly 30 percent since 1890, due mainly to the decrease in exports of wine from $60,000,000 in the latter year to $21,000,000 in the former. It is worthy of note that more than 60 percent of the wines exported from Spain are marketed in France, herself one of the largest wine producing countries in the world; but this is probably for admixture with lighter wines, as with those of California, which after being subjected to French manipulation sell at from three to five times their former price. Next among exports in order of value are iron, copper, and lead, in the ore or manufactured; cottons and woolens; animals and animal products; fruits and timber. Wheat is largely imported; for in common with those of most European countries the crops of Spain do not suffice for home consumption. Raw cotton and wool, coal and coke, wood and wooden ware, drugs and chemicals, tobacco and cigars, machinery and other forms of manufacture figure largely among the imports. The bulk of Spanish commerce is with France, Great Britain, and the Spanish colonies, traffic with all other countries being in comparison of small amount.

In June 1894 the Banco de Espana held gold and silver to the amount of $81,000,000, with deposits of $67,000,000 and a note circulation of $170,000,000, the only paper money issued in Spain. With the rehabilitation of the national credit, caused by a reduction in the capital and interest of the public debt, the standing of the bank has been greatly improved; for it is not very long since its bills were refused in the financial centers of Europe.

The monetary system is founded on that of France, the peseta, which is the unit of value, being the exact equivalent of a franc, with gold coins useless for agricultural or other purposes, though there are several million acres of good farm lands yet uncultivated.

Mineral wealth is abundant; but coal and wood are scarce, and hence many valuable mines remain untouched. About 6,000 men and nearly 1,000 females, many of the latter under 16 years of age, are employed in iron, copper, antimony, manganese, lead, and other mining, a large percentage of the products being exported. Factories are few, and apart from agriculture less than 100,000 persons are engaged in Portuguese industries.

In the main commerce has steadily increased in Portugal within the last 30 or 40 years, imports for 1890 of 5, 10, and 20, and silver coins of 5 and single peseta pieces.

The merchant marine consisted in 1894 of 760 vessels, of which more than one-half were steamers, with a tonnage of 450,000, that of the sailing ships, including smaller craft, being less than 100,000.

Entrances for 1893 were 16,200 vessels of 11,450,000 tons, with clearances of about equal amount, nearly one-half of the vessels carrying the Spanish flag.

At the beginning of the present century there were not 500 miles of carriage or wagon road in all the kingdom; in 1894 there were more than 30,000 miles. In 184S was opened the first of Spanish railways, a distance of 17 miles, from Barcelona to Mataro. A few years later railroad building was undertaken on a considerable scale; so that about 7,000 miles are now opened for traffic. All are the property of companies and corporations; but with few exceptions they have received grants or guarantees of interest from the government, to which the various lines would revert after a term of 99 years. There are about 20,000 miles of telegraph lines, and nearly 3,000 post offices, with an efficient postal system.

Nearly one-half of the surface of Portugal exceeding $60,000,000 and exports $37,000,000. For 1893 the figures show a decline of about 20 percent in the former and 10 or 12 percent in the latter. With Spain legitimate traffic is small, not more than $4,000,000 or $5,000,000 a year; but there is probably twice that amount of smuggling. With England the trade is considerable, and next, in the order named, are Germany, France, Brazil, the United States, and Belgium. As in Spain, cereals are largely imported, and wine is the chief article of export, more than 3,000,000 gallons being shipped in 1893 to Great Britain alone, and this the smallest shipment for several years.

From $14,600,000 in 1888, the value of Portuguese wines shipped to all countries fell to $8,800,000 in 1894. For this the phylloxera is chiefly to blame, destroying yearly hundreds of vineyards, and many thousands in all, with disastrous results to the people, who had thrown into this industry their energy and wealth to the neglect of grain and other farming.

Portugal has money, the bank of Portugal holding in June 1894 nearly $11,000,000 in coin, and having notes in circulation to the amount of $57,000,000 while other banks to the number of 37, had in 1890 $16,000,000 in specie, $13,800,000 in notes, and $40,000,000 in deposits. Nevertheless the monetary system is somewhat deranged, the notes of the national bank being mainly used as a circulating medium.

As with Spain, the public indebtedness of Portugal has grown within recent years, until it has become almost unmanageable, amounting to $480,000,000 in 1890. Then came a reduction of interest, but not of the principal, which kept on increasing until in 1894 it exceeded $700,000,000, a heavy burden in truth for a population of less than 5,000,000 and so poor that few can afford an education, and 80 percent can neither read nor write. It is many a long year since the revenue balanced the expenditure, the deficit being met by borrowing, and hence the frightful incubus of debt. Of late, however, vigorous efforts have been made to reduce the outlay, and for 1893-1894 the revenue and expenditure, as estimated at least, were about the same, the latter being a little over $50,000,000, against $64,000,000 for 1891-1892. Of the former sum $5,700,000 was to be expended in maintaining an army of 34,000 men, apart from reserves, and $3,500,000 to be spent on a navy of 45 vessels, great and small.

The railway mileage in Portugal is about 1,600, most of the lines belonging to the state and the remainder receiving subsidies. In the kingdom itself there are probably 5,000 miles of telegraph lines, and a submarine cable laid between Lisbon and Rio de Janeiro affords communication between the mother country and her former colony.

Spain's possessions on the African coast, including the Chafarinas and Alhucemas islands, the ports of Melilla and Penon de Velez, are mainly used as convict stations.

Returning to the ancient days of Spain may first be mentioned the familiar but somewhat doubtful story as to the men of Saguntum, when their city was about to fall into the hands of Hannibal. It is said that making a great fire in the public square, they threw into it first their gold and silver and then themselves. How much of the metal the conquerors recovered, history does not record.

Early in the annals of Toledo, the Jews, by whom indeed it is said that city was founded, became very rich; so king Wamba robbed them and drove them out of the country. This was in the seventh century, and long before and ever since that date, even to the present decade, the Jews have been constantly liable to confiscation of property and exile. One would think that if it is a righteous and politic measure to rob them, they might be allowed to remain in the country, if only to gather more gold and be robbed again.

When the Spaniards took Toledo from the Moors they taxed every Jew 30 pieces of silver, the price at which Christ was sold. In one year, that of 1492, there were driven from Spain by Ferdinand and Isabella 170,000 Hebrews.

Not satisfied with burning Jews and Arabs, Ximenes destroyed books, those otherwise imperishable instructors of mankind. Thousands of Arabic manuscripts, particularly such as related to theology, the worthy bishop committed to the flames.

Pedro the Cruel, coveting the wealth of his faithful adherent Samuel Levi the Jew, who built the synagogue called El Transito in Toledo, was not content to take from him his wealth without cause, but first tortured him and then put him to death.

The cathedral at Toledo has a collection of church vestments which are something wonderful in the way of art needlework, probably the finest specimens in existence of the beauty and magnificence of which that art is capable. In the Virgin's wardrobe is a mantle having embroidered in it 78,000 pearls, besides countless diamonds, rubies, and emeralds.

The Generalife in Granada now belongs to the family of Grimaldi in Genoa. At Hinadamar, not far from Granada, is a Carthusian convent famous for the beauty of its marbles, jaspers, and inlaid ebony and tortoise-shell. At Granada one of the first European postal systems was organized by the Moors, and partly on that system was based the one established in France by Louis XL.

There were once in Salamanca 25 churches, 25 convents, 25 colleges having each 25 professors, and a bridge with 25 arches. The bridge alone remains intact. In the library of Salamanca is a book containing the Lord’s Prayer in 157 languages. The first gold brought from America by Columbus was given out of gratitude to the convent of the Dominicans in this city to gild the retablo of their church.

In one of the sacristies of the Burgos cathedral is the traditional chest which the Cid filled with stone and sand, with a top layer of gold and gems, for the purpose of borrowing money from two wealthy Jews, to whom he displayed what purported to be a great mass of treasure. He succeeded in his purpose.

The Muslim monarch Abdurrahman I, when he had established himself in Spain, demanded as tribute 10,000 ounces of gold, 10,000 pounds of silver, 10,000 horses, 10,000 mules, and 1,000 cuirasses. In the cathedral of Cordova, originally built as a mosque for this sovereign, the pillars, still nearly 700 in number, though many have been destroyed, are of jasper, marble, and porphyry in many tints, forming one of the finest specimens of mosaic work belonging to the Moorish period.

When Abdurrahman III reigned at Cordova, he was called the richest monarch in the world; by systems of irrigation agriculture was developed; commerce, science, and art were at their best, and millions of old pieces filled his coffers, most of which he expended on public works.

Mary, infanta of Portugal, was but fifteen years of age when she came to Spain to marry Philip II who was sixteen. She sat gracefully upon her mule, on a silver saddle, gowned in silver cloth embroidered with gold, and a velvet hat with white and blue plumes. To obtain a good look at her without himself being know, Philip mingled in disguise among the crowd. On the eve of his second marriage,—with bloody Mary—he was about to be mobbed, but the wrath of the people was somewhat quieted by the appearance of cart loads of Mexican and Peruvian silver, which were rolled on before him.

Never was such a gift from father to son, or from one man to another, as that made by Charles V, when 56 years old, to Philip II, then 29. In territory, wealth, and other possessions the gift fell not far short of half the world, and what it contains. Besides Spain and Spanish America, there were Franche-Comte and the Netherlands, Naples and Sicily, and other vast areas in Europe, Asia, and Africa.

Eleven archbishops and 62 bishops controlled one-third of the Spanish revenue during the time of Philip II. The clerical class in Spain in 1749 comprised 182,000 persons, of whom 112,000 were in orders. The annual income of the church at this time was not less than 359,000,000 reals.

In Spain, as elsewhere, rulers have often become rich by questionable means, Queen Christina, for instance, making, it is said, $40,000,000 by speculating in stocks. And so with officials; one class acquiring wealth by smuggling; another through bribery, a third through blackmail; the assessors being probably as honest and thrifty as any, unless it was the judges.

There is a royal jewel of Spain, an opal surrounded by diamonds, as unlucky as it is valuable. No less than five owners have died within 20 years, Alfonso XII, who gave it to his cousin Mercides, on her death going to Queen Christina then to the Infanta del Pilar, then to Christina, daughter of the duke of Montpensier. It was finally hung round the neck of the virgin of Almudena, where let us hope it is powerless for evil.

The people of Spain support, besides the royal family, 96 dukes, 900 marquises, 750 counts, 130 viscounts, 76 barons, and 243 grandees, with their relatives and retainers.

The young king of Spain has a civil list of $1,500,000 a year; his mother $100,000; sister $100,000; the ex-queen Isabella, $150,000; and her husband $600,000.

Doubtless the story of the Invincible Armada sounds sweeter to English than to Spanish ears, though the shame of defeat adds little luster to the good fortune of success . The preparations of Philip for the invasion of England were completed in May, 1588. Sixty-five of the 130 vessels were large ships and galleons; there were 25 smaller ships, 19 tenders, 4 galleasses, and 4 galleys. The soldiers numbered 19,295, mariners 8,050 and rowers 2,088. Of this force Portugal supplied 4,623 men. On board the

fleet were 2,431 pieces of artillery and 4,575 quintals of powder. Besides the regular soldiers 2,000 volunteers, belonging to the most aristocratic families in Spain, accompanied the expedition. A formidable force was likewise prepared in the Netherlands. The duke of Parma, with 30,000 foot and 4,000 horse in the vicinity of Nieuport and Dunkirk, awaited the arrival of the Spaniards, flat-bottomed boats, built for the most part at Antwerp, and conveyed by river and canal in order to avoid the English vessels which guarded the coast, being ready to transport the troops to British shores.

Queen Elizabeth made ready to meet the foe on sea and land,—on sea with 181 ships and 17,472 men, on land with two armies, one under the earl of Leicester, of 18,449 men to move immediately upon the enemy, the other of 45,362 men under Lord Hunsdon to defend the person and possessions of the queen. There were also forces in the north and west to prevent inroads from Scotland or Wales should any such be attempted.

Ill luck attended Philips efforts from the beginning. First, on the eve of departure, the Marques de Santa Cruz, who had been appointed admiral of the Armada, sickened and died, as did also the vice-admiral, the duke of Paliano,—both able officers, at whose sudden and singular demise suspicions of foul play were entertained. The vacant posts were tilled as quickly as possible, the first by the duke de Medina Sidonia, a nobleman of high repute but with little knowledge of maritime warfare, the other by Martinez de Recaldo, an able and experienced captain.

Setting sail from Lisbon on the 29th of May, the fleet was dispersed by a storm, all but four of the ships, however, reaching Corunna, where they were delayed several weeks undergoing repairs. The report reached England that the Armada was destroyed, whereupon the queen ordered to her secretary to instruct Lord Howard, the English admiral, to lay up four of his largest ships and discharge the seamen. But the admiral begged that he be first allowed to prove the truth of the rumor, offering himself to bear the cost of the delay. Sailing for the coast of Spain, he found that the Armada was not seriously damaged and fearing that the Spaniards might reach England before his return, hastened back to Plymouth, whence he had sailed. Hardly had he cast anchor than he was told that the Armada was in sight; and there indeed it was, in all its imposing array, sailing through the channel in the form of a crescent, seven miles in length, and making direct for the coast of Flanders, there to meet the duke of Parma.

Not strong enough to attack, the English fleet hovered in the wake of the Spaniards, ready to take advantage of whatever might befall in their favor, Sir Francis Drake capturing two vessels, one of which took fire. The Spaniards labored under a disadvantage in these narrow seas owing to the size of their vessels and the height of their guns above water.

Fire ships were sent against them with good effect; and defeated at even turn, with provisions beginning to fail, they decided to return to Lisbon for fresh supplies, passing around the northern end of the British isles for that purpose. But while rounding the Orkneys a storm struck and scattered the fleet, well-nigh destroying it; the coasts of Scotland and Ireland were strewn with wrecks and the crews were captured by the inhabitants; the duke of Medina, by keeping to the open sea, reaching Santanter toward the end of September with sixty sail.

Thus fails Philip "to serve it God, and to return unto his church many contrite souls that are oppressed by the heretics, enemies to our holy catholic faith, which have them subject to their sects,"

while Elizabeth betakes herself in solemn procession to church and thanks God for the defeat of Philip's plans, extending her hands in blessing on the people in answer to their joyous acclamations.

At the Escorial is shown today the desk at which Philip was writing when Christoval de Moura arrived to tell of the mighty misadventure of an expedition which had cost him eighteen years of careful preparation and a hundred millions of ducats. Calmly he received the announcement, and without the movement of a muscle in his cold, impassive features, “I thank God.'" he said, "for having given me the means of bearing such a loss without embarrassment, and the power to fit out another fleet of equal size. A stream can afford to waste some water when its source is not dried up."

Among the men of the day, interested in greater or less degree in the momentous events at that time transpiring, were Lord Burleigh, master of the robes to Henry VIII and Elizabeth's lord high treasurer; Sir Francis Walsingham, secretary of state; Sir Christopher Hatton, who danced himself into the office of lord high chancellor; Sir John Hawkins, rear admiral of the fleet; Sir Walter Raleigh, who planned the colony of Virginia and wrote a history of the world; Sir Martin Frobisher, one of the most distinguished officers who fought against the Armada; the Earl of Essex first favored and then beheaded by Elizabeth; Sir Thomas Scott, descendant of Baliol, king of Scotland, and commander of the Kentish forces; Sir John Norris, who served the queen in the Netherlands; the earl of Suffolk, an able commander; the earl of Cumberland, or George Clifford, the queen’s champion; the earl of Northumberland, who fought the enemies of land in vessels equipped at his own expense; the earls of Devonshire and Salisbury, who fought in ships hired at their own cost; the earl of Monmouth, who was on board the English fleet when the Armada was scattered; the earl of Exeter, who served against the Armada; the earl of Derby, who was mayor of Liverpool at the coming of the Spaniards, and raised a land force from his private purse; Lord Cobham, one of the commissioners appointed to treat for peace with the duke of Parma at Ostend; the earl of Dorset, who succeeded Burleigh as lord high treasurer; Henry Stanley, another earl of Derby, one of the peers who sat at the trial of the queen of Scots: Cardinal Allen, who urged Philip to undertake the conquest of England; Robert Parsons, a Jesuit who stirred up sedition among the Catholics in England; James VI of Scotland, who succeeded to the English throne on the death of Elizabeth in 1603; Lord Maitland, sometime first minister of James; Prince Maurice of Nassau, who reduced Spain to the necessity of making peace with the Hollanders; Justinus de Nassau, admiral of the Zeeland fleet; Joos de Moor, vice-admiral, sent to oppose the 30,000 troops under the duke of Parma; Henry III of France, whose kingdom was too much distracted to allow him to help Spain against England; Henry IV, who succeeded as king of France and Navarre in 1589; Henri due de Guise, who advised the massacre of St. Bartholomew; Henri de Guzman Olivares, viceroy of Spain; Pope Sixtus V, who purged Rome of outlaws, and while frowning upon the over-reaching ambition of Philip, excommunicated Elizabeth, urged the dispatch of the Armada, and promised pecuniary aid for the subjugation of England. Then there were William Shakespeare, Miguel de Cervantes Saavedra, et alii eis similes, but whose names are hardly to be mentioned in such worshipful company.

Chapter the Ninth: The Turkish Empire

Gold! gold! gold! gold!
Bright and yellow, hard and cold.
Molton, graven, hammered and rolled:
Heavy to get, and light to hold:
Hoarded, Bartered, bought, and sold.
Stolen, borrowed, squandered, doled:

Price of many a crime untold:
Gold! gold! gold! gold!
Good or bad a thousand-fold!
How widely its agencies vary—
To save—to ruin—to curse—to bless—
As even its minted coins express,
Now stamped with the image of god Queen Bess,
And now of a Bloody Mary.

According to the chronicler Aboulgazi Bahdur-Khan, the Turks are descended from the eldest son of Japhet and of Mongolian origin; "but ", says this historian of his country, "as in gazing on the sun the eye becomes dazzled with its brightness so does the mind become confused with the brilliant origin of this illustrious race." Belonging to the great Turanian family the Turks spread northward as far as the banks of the Lena and westward into Asia Minor and the shores of the Black Sea Under the name of Tukin, whence probably comes the word Turks, they formed an empire on the borders of the Chinese, by whom they were first defeated and with some of the whom they were afterward united. Then came a division, tribes becoming slaves to the khan of Geougen, and working in the gold-bearing mountains of Altai, or as makers of weapons of war. The remainder formed a nation of warrior-shepherds, with pasture lands of almost unlimited extent, horses forming their principal wealth; so that in one of their armies were 400,000 cavalry. In later times, from the Trebizond, Caucasus, and Altai mines came a steady stream of gold, which metal became so abundant as to be used for the furniture of the earlier emperors, one of whom sat enthroned in a chariot of gold supported by golden peacocks. In the seventh century Mohammed appears on the scene, his religion spreading with such marvelous rapidity that the converts of Islam far outnumbered those of the Christian faith. About the end of the tenth century the title of sultan was conferred on Mahmud, one of the most powerful of Turkish potentates, whose domains extended into Persia and Hindustan. In the reign of Sultan Soliman Turkish troops first landed in Europe as a reinforcement to the Byzantine army at Scutari. Presently began the crusades, notwithstanding which the Turks made good their footing in Europe and Asia Minor, though it was not until the middle of the fifteenth century that they became masters of the long coveted prize on the shore of the Bosphorus.

Originally a Greek settlement, Constantinople, or Byzantium as first it was called, was founded about the middle of the seventh century of the pre-Christian era, and after being destroyed by one of the satraps of Darius was recolonized by Pausanias. Through its position on the Bosphorus it acquired control of the corn trade between the west and the cities on the Euxive, and from its wealth in tunny and other fisheries its curved bay was named the Golden Horn. Conquered by the Macedonians, it afterward became subject to Rome, and for espousing the cause of her enemies was demolished, and later in part rebuilt by Severus. By Constantine was reared a new city more than double the size of its predecessor, and enclosed with two walls on the building of which 40,000 Goths were employed, these fortifications being strengthened and repaired by successive rulers until they were believed to be impregnable.

They were in three tiers, each higher than the one in front, with towers at intervals of 150 feet, the entire work containing more masonry than would suffice for all the castles on the Rhine, while the remains are probably the most imposing ruins in the world. There is also a deep, wide foss, now used as a vegetable garden, and separated by open cisterns formerly filled with water sufficient to supply people during a four months siege.

At the opening of the thirteenth century Constantinople had become the principal city of the western world, not only as the residence of the emperor and his court, of the wealthy and noble who found in this new Rome all the luxury of the Augustan era, but as the highway of commerce between Europe and Asia, while much even of the traffic of Egypt passing into the Golden Horn. In this treasure-house of the nations had been amassed the riches of many centuries, men who had become wealthy in other lands flocking to the eastern capital to spend or invest accumulations gathered in cities themselves renowned for wealth. The warehouses were filled with gold and silver, with silks and purple cloths,

while the citizens lived and attired themselves like princes, their garments glittering with gold and precious stones. Of the palace of Blachernae, fronting on a square where were the statue of Justinian and the silver image of the empress Eudoxia, the walls and columns were covered with gold, and in its golden throne and golden crown were gems of priceless value. "There was gold and silver for all," declares one of the crusaders, “there were vessels of the precious metals, silk, and satin cloths, furs of various kinds, and goods of all descriptions that have ever been found or made on the face of the earth. " As to places of worship, says Benjamin of Tuleda, a Spanish Jew sojourning in Constantinople, "all others in the world would not equal in wealth the church of the Divine Wisdom. It was ornamented with pillars of gold and silver and with innumerable lamps of the same materials, and its riches could not be counted.” Notwithstanding the strength of their fortifications, no wonder that the inhabitants trembled for the safety of possessions coveted not only by the Turks but by many European monarchs.

The history of Constantinople is in truth little more than a history of its sieges, most famous of which was that which resulted in its capture by Mohammed II. It was then that artillery first played a prominent part in warfare, a foundry being erected at Adrianople, where, as is said, cannon were cast that would throw a ball 600 pounds in weight. There were also powerful battering-rams and huge engines for hurling stones, while a fleet of ships and an army of 250,000 Turks aided in its work of destruction the grim machinery of death. Long and fierce was the resistance made by the slender garrison of 5,000 men, until in the breach at the gate of St Romulus the last of the Constantines fell in defense of the city which the first had founded and named. Then came pillage with its nameless horrors, after which the sultan surrounded with his viziers and pashas who celebrated the triumph of Islam on the high altar of the temple where but a few hours before Christians had prayed for deliverance, calling on their God in deep and earnest supplication, but calling in vain.

"The city and buildings are mine," declared Mohammed; "but I resign to your valor the captives and the spoil, the treasures of gold and beauty." And he kept his word; the booty being gathered by the strongest or by those who were first on the spot, without any attempt at regular division. In all the churches, monasteries, and palaces the work of pillage proceeded without check or hindrance; nor was there any building, however sacred or secluded, that could protect the persons and property of the inhabitants. The church of the Divine Wisdom, where multitudes had taken refuge was despoiled of the offerings of ages in vessels and ornaments of gold and silver, in precious stones, and in sacerdotal vestments, the rapine of a few hours being more productive than the contributions of many centuries. Then the captives, both male and female to the number of 60,000, were driven to the Turkish camp and fleet; the men to be ransomed or sold into slavery, and the virgins to exchange the life of the convent for that of the harem. Not least to be deplored was the destruction of the Byzantine libraries, containing, it is said, 120,000 manuscripts, among which were many of priceless value, ten volumes being offered for a single ducat, while for the same price could be purchased the entire works of Homer and Aristotle.

Among other palatial structures in Constantinople was the imperial palace, the site of which was later occupied by the mosque of Ahmed. It consisted of a series of buildings surrounded with gardens extending in one direction to the hippodrome and in another to the shore of the Golden Horn. Mohammed II erected the palace known as the seraglio in three divisions, one for his guards, one for public receptions, and a third for himself and his household. It became the abode of the Ottoman

sultans; but only portions of its walls remain. By Constantine were reared the Palace of the Lord with its coronation hall, better known as the Tekfur-Scrai, at the foot of which is the mosque of Kahrich.

The mosque of St. Sofia, occupying the site of successive Christian churches, is the most imposing of the sacred edifices, and one of the finest specimens of Byzantine architecture.

Among the churches was that of the Divine Wisdom, erected by Constantine, the first dedicated to the new faith, and on a magnificent scale. Destroyed during the Christian schisms, it was reconstructed by Justinian with funds obtained in part by melting a silver statue of himself thirty-seven tons in weight, the total cost exceeding $5,000,000. Ten thousand men were employed on this structure under the personal supervision of the emperor, who paid them every night for their task and bestowed rewards on the more skilful and diligent workmen. It was nearly six years in building, and when it was completed it is said that the emperor, proudly surveying his temple as did Nebuchadnezzar the city which he had built, exclaimed "I have conquered thee, O Solomon." The exterior is of brick and somewhat crude in design; but within a striking effect is produced by the costly marbles which line the walls and by the bold sweep of the dome, 180 feet in height, resting on massive arches and flanked with colonnades of many colored pillars supporting lofty galleries. Among the columns, more than 100 in number, are those which Constantine removed from the temples of Apollo at Rome and of Diana at Ephesus. Both walls and dome were encrusted with mosaics in many figures and devices, of which little now remains except the colossal seraphim with wings 50 feet long, their features being obliterated when the church was converted into a mosque. The building has been many times repaired and restored, especially in 1849, when it was found that the dome was too heavy for its supporting walls.

Of the hundreds of mosques and mesjids in Constantinople, many are built not only on the site but with the materials of Christian churches, among them that of Suleiman the Magnificent, with an area of 52,000 square feet, and in dimensions and design resembling the fane of Saint Sophia, though internally far inferior as to decorative scheme. It is in the form of a Greek cross, surrounded by a quadrangle, as in most of the Turkish mosques, their plan being adopted from Christian models without reference to their origin. The entrance and of way is approached by a broad flight of marble steps, singular beauty are its lofty pillars of Egyptian porphyry. Most of the hills, on which as in Rome, the city is built are crowned with mosques whose stately domes and minarets stand forth in bold relief, and especially striking is the effect when illumined by night on festal occasions, they cast on the waters of the Golden Horn festoons of dazzling light.

Of the imperial hippodrome, with its rows of white marble seats resembling those of the Dionysias theater at Athens, most of the materials were used for the building of mosques. Founded by Severus, it was constructed and adorned by several of the emperors, among its decorations being an obelisk of Egyptian syenite, the pyramid which served as a goal, and the bronze horses now contained in the church of St. Mark at Venice. But its most famous monument was the column of the Three Serpents, which formerly supported the golden tripod in the temple of Delphi, captured by the Greeks after the battle of Platae. Elsewhere in the city and especially around and within the mansions of the rich thickly clustered in the fashionable quarter, were many columns, statues, and paintings; for Constantinople, like Rome, was a storehouse of Grecian art.

Of secular and especially commercial buildings of the better class, Galata on the northern side of the Horn, built up to the crest of a hill crowned with a ponderous fifth-century tower, is now one of the

principal quarters. In former ages, when Constantinople was occupied by the Genoese, the tower was their principal defense, being joined to another huge castle on the opposite shore by a massive iron chain for protection against hostile fleets. Near it are the stores and banks and merchants' offices of the business quarter, not far from which are the palace of the podesta and the Lombard church of St. Benedict. Scutari, though on the Asiatic shore of the Bosphorus, may be regarded as a suburb of Constantinople. It is a beautiful town, built in the form of an amphitheater on the slopes of several hills, beyond which are gardens, villas, and one of the largest cemeteries in the world, in its center the great dome with marble pillars erected by Sultan Mohammed in memory of his favorite horse. Connected with Scutari are many historic recollections, its ancient name of Chrysopolis, or the city of gold, being probably derived from the tribute collected by the Persians, who also formed here a depot for the rich spoils collected from the Greek settlements on the Asiatic coast.

Adrianople, named after the emperor Hadrian, whose improvements gave to it a more pleasing appearance than it now presents, with its narrow tortuous and refuse-littered streets, ranks next to Constantinople in importance. Among its public buildings are the mosque of Selim II, one of the most splendid of Mohammedan edifices, as also was the ancient palace of the sultans now fallen into decay. Bazaars are numerous, chief among them being that of Ali Pasha, and there is a considerable volume of commerce and manufactures in this city of 70,000 people. The country around is extremely fertile; the mines in its neighborhood were formerly among the most productive in the world, and here is the chief source of supply for the great fairs at which merchants gather from all quarters of European Turkey.

Salonica, the Thessalonica of ancient and the Therma of still more go ancient days, was an important city more than twenty-five centuries ago, when the plains that surround it were covered with prosperous Macedonian settlements.

There the army of Xerxes encamped, and there was the naval station of Macedonia until after his defeat at Pydna, Perseus, the last of its kings, was carried captive to Rome, there to show the people, as Plutarch relates, “what immense sums he had saved and laid up for them." Its wealth was derived from rich mines in the neighborhood, as well as from the trade and industries of a large population, while culture was combined with opulence, among the spoils most prized by the conqueror, Paulus Aemilius, being the library of the fallen monarch. Later, during Gothic and other invasions, it became the bulwark of Constantinople and of the Roman empire, one of its monuments being the triumphal arch erected in honor of Constantine, while amid mounds of rubbish are the remains of marble palaces columns and sarcophagi, beneath which perchance lie buried some of the treasures of Macedonian sovereigns. Still are to be seen the remnants of the white marble portico of the hippodrome where, without regard to age or sex, Theodosius massacred 15,000 persons whom he had treacherously invited to the games. An imposing structure is the castle of the Seven Towers, its domes and minarets rising above the foliage of elm and cypress groves. Near the end of the sixteenth century the cathedral of Saint Sofia, probably erected in the time of Justinian, was converted into a mosque, its dome being still covered with figures in mosaic representing the ascension. The dome of St. George’s has also its mosaics, whose subject is a series of saints worshiping in front of temples, the decoration, if such it can be termed, covering its entire surface of more than 7,000 square feet, the largest known specimen of ancient mosaic work.

Turkey is exceedingly rich in resources, though among her fertile plains and valleys are large areas of uncultivated land. Her waterfalls are little utilized; her rivers are filled with obstructions; her harbors as nature made them, and many of her roads impassable for wheeled vehicles. The mountains are covered with merchantable timber, and there are vast deposits of coal and iron, copper and lead, almost entirely unheeded while Thracian, princes were made wealthy by mines of gold and silver, now no longer worked but far from being exhausted. In Macedonia are veins of copper and argentiferous galena, and cinnabar is found in the region north of the Balkans. The richest of the silver and lead mines are in Mount Pelion where is also an abundance of fuel and water-power. Asia Minor and the islands of the Grecian archipelago were famed for their mineral wealth, and though the yield of their mines declined with the decline of the civilization to which the ministered there is still an abundance of valuable ores awaiting only the advent of capital and enterprise.

As Pliny relates, the riches of the island of Cyprus came largely from their copper mines, while there were also the precious metals, the emerald and agate, malachite, jasper, opals, and the rock crystals held in esteem by the Romans. In Lemnos was also copper; in Thasos gold; in Thessaly gold, silver, and lead while several of the islands were noted for their precious stones.

In former ages the Turks were noted for their skill in handicraft; but the application of steam to nearly all branches of manufacture has deprived them of this preeminence, and they are now almost entirely an agricultural people. At the beginning of the present century the markets of the Levant were stocked with Turkish manufactures, which have now given place to articles of English make. Damascus steel no longer exists; the muslin looms of Scutari and the silk looms of Salonica and Broussa have been idle for many years, as also have the cotton looms of Aleppo, while Constantinople, Adrianople, and Bagdad are no longer prominent as manufacturing centers. Thus exports consist almost entirely of raw products, chief among them being cereals and fruits, silk cotton and wool, coffee and olive oil. Imports are mainly of cotton and other textile fabrics, with a total value far in excess of exports, leaving a heavy balance of trade against the country to be met by payments in gold.

In the principality of Bulgaria, including eastern Roumelia, are several cities of historic fame, as Philippopolis, Varna, Shumla, Plevna, Silistria, and others whose annals need not here detain us. As with the Turks, the people are an agricultural community, raising cereals, fruits, and other products, of which there is a considerable surplus for export. For the most part they own the land which they cultivate, building thereon dwellings of wood and clay, in which as a rule large families are reared; for food is cheap and children are set to work at an early age. A portion of their farms is usually devoted to vineyards and flower gardens, and another portion to pasture, the buffalo being largely used for tillage, though of other livestock there is a plentiful supply. Timber is abundant and wastefully used; minerals are almost entirely neglected, and highway roads are few and poor, though railways connect the capital city of Sofia with European systems by way of Constantinople and Belgrade.

Of ancient and modem Egypt a description has already been given, and of Tripoli and other Turkish possessions in Africa I shall have occasion to speak in a later chapter of this work. Passing to Asiatic Turkey we find there much that is worthy of mention, though rather of historic than of transient interest; for here are many of the great centers of antiquity, from the city of the Troad to those whose spoils filled to overflowing the treasuries of imperial Rome. Of Troy it may be remarked that while implements and weapons resembling those which Homer describes have been unearthed, there is little to prove or disprove the story of its siege. Of much greater value are such ruins as those of

Pergamum, with its temple of Athena Polias and its great sculptured altar of Zeus Soter, of Palmyra, Baalbek, and Djerach, pointing to Syrian civilization as it existed when in the days of Solomon the first of these cities was a storehouse on the principal highway of commerce. Though now a mere hamlet, Palmyra was at one time the mistress of the east, the emporium for the luxuries of the ancient world, the costly fabrics, the pearls and jewels, the perfumes spices and unguents of Arabia India and China. Greatest of all its monuments was the temple of the Sun, its courtyard 750 feet, square, lined with colonnades resembling those of Herod's temple, and whence from a triumphal arch adjoining radiated the central avenue of the city. No less imposing are the remains of Baalbek, the Heliopolis of the Greeks, though as to its origin the classical writers are silent. It is known that its walls were four miles in circuit, while its Great temple, 1,100 feet in length and rich in sculptural and columnar ornaments, was well worthy of its name.

Here also was a temple of the sun, of which portions are still preserved, and near it the Circular temple, the smallest of the three but the most finished in design and workmanship. When captured by the Moslems Baalbek was one of the wealthiest cities of Syria, containing many palaces and ancient monuments and well supplied with all that contributes to luxurious living. As ransom were exacted 2,000 ounces of gold and 4,000 of silver, 2,000 silken vests, 1,000 swords, and all the arms of the garrison.

Aleppo succeeded to Palmyra as the emporium of commerce between eastern countries and the Mediterranean seaboard, many traces of its former grandeur remaining in the neighborhood of the modern city. Plundered first by the Saracens and then by the Tartars, it finally passed into possession of the Turks early in the sixteenth century, since which time it has suffered much from earthquakes and pestilence. In 1822 the citadel, many of the mosques, and much of the town were laid in ruins by an earthquake which destroyed more than half its population; then came a recurrence of the plague which not many years before had swept away 60,000 persons, the cholera of 1832 adding to a succession of calamities which culminated in the tumults of 1850, when property to the amount of many millions was destroyed by Moslem fanatics. Before these disasters Aleppo was one of the fairest of Turkish cities and still its mosques and minarets, its Christian temples of worship, its colleges and libraries, with rows of houses built of freestone on the sides of terraced hills, present from a distance a scene of singular beauty. Its trade is still sufficient to maintain more than a hundred mercantile houses and among many branches of manufacture are its famous silken and other fabrics, flowered or woven with threads of gold and silver.

Damascus was a place of note even in the days of Abraham, whose steward, Eliezer, was a native of that town, many changes of dynasty occurring from the days when its people were carried away captive by the Assyrians, until finally it fell into the hands of the Turks. Few cities have been so often pillaged; but never were the woes of conquest so dire as after its capture by Tamerlane, “the wild beast"' as he is called by Arab chroniclers.

Though each one promptly paid the redemption money exacted by the conqueror, a general massacre followed, and of the entire Christian population only a single family escaped. Its stores of wealth and treasures of art were carried away or destroyed; its palaces were burned to the ground, and of its libraries, filled with the writings of the caliphs and of the fathers of the church, hardly a vestige remained.

Among the antiquities of Damascus are Roman gateways, walls founded by Seleucid monarchs, and a castle probably erected by one of the Byzantine emperors. Near the castle, but surrounded with dwellings and bazaars so as to be almost concealed from view, is the Great mosque, its massive exterior colonnades contrasting with slender Saracenic minarets and arcades. It is 430 feet in length, divided into aisles by rows of Corinthian columns, and surmounted by a dome beneath which it is said, lies the head of John the Baptist, buried in a golden casket. Among other mosques are the Tekiyeh, built by Sultan Selim for the accommodation of pilgrims, and the Senaniyeh, reared by near which are the Senan Pasha, with cloistered court and richly decorated chapels, tombs of Saladin and other Saracen princes. Damascus is a city of stately domes and tapering minarets, their gilded crescents rising above terraced roofs and luxuriant foliage, presenting at a distance the appearance of an enchanted realm. For sixty miles around it extend the gardens, vineyards, orchards, and meadows watered by the Abana, of which Naaman said: "Are not Abana and Pharpar, rivers of Damascus better than all the waters of Israel?" The bazaars are the most famous in the East, though merely rows of open stalls on either side of narrow covered alleys; there are also more pretentious marts called khans, where merchants meet for traffic. Gold and silver ornaments, weapons, silks, and woolens are the chief articles manufactured, and for them there considerable foreign demand.

Antioch, founded by Seleucus Nicator as his capital after the partition of the Macedonian empire, became in the days of Antiochus Epiphanes a city second only to Rome and Alexandria in architectural magnificence. From its citadel and the four quarters adjacent extended to the cypress grove of Daphne, with its temple and colossal statue of Apollo, a line of beautiful villas and gardens several miles in length. Of the city itself the streets and porticos were styled golden, in reference to their gilded and stately columns, the principal thoroughfare, paved with granite, having four parallel rows of pillars, leaving a spacious road in the center, flanked by arcaded sidewalks. Rivaling the great Roman edifice was the temple of Capitoline Jove, while even more imposing was the church which Constantine founded, its domical roof of enormous size and its interior glistening with golden ornaments and precious stones. A noble structure was the theater founded by Seleucid kings and completed and enlarged by Roman emperors, several of whom visited this eastern metropolis and added to its public monuments. Over one of its gates were placed by Titus the cherubim taken from the temple at Jerusalem; by Hadrian was built at the grove of Daphne a reservoir in the form of a temple dedicated to the nymphs; by Valens many new buildings were erected, including a forum encircled with basilicas in the center of which was a lofty column. And thus, except for destructive earthquakes, the city prospered until its capture and pillage by Khosru the Persian in 538, whereafter it fell from its high position as the queen city of the East. Several times Antioch was destroyed by earthquakes, entirely or in part.

In 115, during a series of violent shocks lasting for several days, the inhabitants fled the town to escape from falling buildings; the mountains shook and the rivers changed their courses; but most disastrous of all was the catastrophe of 526, when, as is related, a quarter of a million of people lost their lives.

Of Sardis, the former capital of the Lydian empire, only its ruins remain, except a cluster of huts occupied by a semi-nomadic tribe. During the reign of Croesus it became the wealthiest and most powerful city of the Orient, and long before that time was the industrial metropolis of the ancient world, coined money being here invented, while as a manufacturing center it was noted for costly and delicate fabrics. To the treasures stored in Sardis, and to its steady stream of wealth-producing

commerce, was probably due the legend of the Pactolus flowing through the market-place over sands abounding in gold.

Of all the rich men of the East there were none who compared with Croesus, whose inherited possessions were increased by conquest and traffic until he came to be regarded as the type of human prosperity. His adversaries and those who sided with them he treated with ruthless severity; later, in the hope of expiating his wrongs, presenting magnificent gifts to the temples of the Greeks on the other side of the Aegean, as well as to those which he had pillaged. In the temple of Diana at Ephesus as Strabo relates, he repaired the damage wrought by the Scythians, donating also its golden oxen from whose and many of its marble columns. Still more lavish were his donations to the Delphic fane of Apollo, oracle he sought response as to the issue of the forthcoming war with Cyrus. First offering in sacrifice 3,000 oxen, he melted a sufficient quantity of gold from which to fashion 116 bricks from three to six hands' breadth long and one in thickness. To these were added a golden lion ten talents in weight, a female figure of gold three cubits in height, with vessels and casks of gold and silver.

The oracle responded that if Croesus went to war he should destroy a mighty empire; but the empire proved to be his own; for he was defeated and conducted as a prisoner into the presence of Cyrus, who became master of his capital and all his rich store of treasure. As to the fallen monarch, he was sentenced to be burned alive; but the legend relates that while the flames were ascending his funeral pyre, Cyrus relented, and as some have it the fire was extinguished by a shower sent by Apollo in response to his offerings and supplications.

In Ephesus, founded according to its own traditions in the eleventh century before Christ there was from time immemorial a sanctuary of Diana, around which clustered the most ancient quarter of the town. In the time of Croesus the first great temple was partially built, the splendor of the completed structure being largely due to his gifts, prompted rather by policy than piety, his object being to make of Ephesus an Asiatic rather than a Hellenic city. After its destruction in 356 by Herostratus, whose name would probably have perished but for the decree which forbade its use, it was rebuilt on a still more splendid scale, and later was regarded as the finest specimen of Ionic architecture, ranking among the wonders of the world. All Asia contributed to the cost, its 127 pillars of Parian marble being the gifts of as many kings, while the men of Ephesus gave their money and the women their jewelry, refusing the offer of Alexander the Great, on the night of whose birth the fire occurred, to pay the entire expense on condition that his name be inscribed on the pediment. It was 418 feet in length by 230 in width, many of its external columns, 56 feet in height, being sculptured with figures in relief, the remains of which show that they were of no ordinary workmanship. From floor to roof the entire building was of marble; the walls built of solid blocks faced with brass and silver plates, and the frieze adorned with mythological figures of Theseus, Hercules, and other mythological subjects. For centuries the temple was a rich museum of art and other treasures. Roman emperors vying in munificence with wealthy citizens, one of whom presented a large number of gold and silver images to be carried in the processions.

There were figures of Amazons, the mythical founders of the city, by Phidias, Polyclitus, and other of the classic masters; there was Apelles' famous painting of Alexander wielding a thunderbolt, and from a constant stream of visitors and votaries came numberless contributions in money and objects of virtue. From lands and other sources the temple derived an enormous revenue, and here was also stored for safe-keeping much of the wealth of Asia, monarchs and subjects alike being glad to place

their possessions under the guardianship of Diana of the Ephesians. Thus was this celebrated fane at once a sanctuary, a place of worship, a museum, and a bank, until in 262 it was plundered and destroyed by the Goths, together with the city itself. When Christianity supplanted the cult of Artemis, its remains were used as a quarry for the architectural embellishment, first of Constantinople, and then of Turkish mosques and Italian palaces. Later its site, covered deep with mud, remained for ages unknown, and was discovered only by an accident which in 1869 directed to the spot an explorer in the service of the British museum.

Smyrna, whose commerce had exalted it, twenty-six centuries ago to a foremost rank among the Greek settlements of Asia Minor, is still the leading commercial emporium of the Levant. Though its origin is lost in the twilight of history, it has preserved an almost perfect continuity of record, at least from the days of its occupation by Ionian colonists. Still are to be seen the remains of the massive Ionic fortress which formed the land-ward defense of the town until its capture by the Lydians, where after it sank into the condition of a village until restored and refortified on its present site by the successors of Alexander the Great, to whom, as is said, its rebuilding was it suggested in a dream. As then it stood, it was a city of surpassing beauty, rising from the seaboard, tier above tier, on terraced hillside slopes toward the acropolis. Its streets were broad, well paved, and laid out in regular lines. There were several temples, and among its public buildings were a theater, a stadium and a gymnasium. With a present population of more than 200,000, Smyrna is now the chief port of Asiatic Turkey, and the terminus of a railway system which is being gradually extended into the most fertile valleys of Anatolia.

Trebizond, the Trapezus of the Greeks, was first made known to the western world after the retreat of the Ten Thousand, who rested there for a time from their long and toilsome journey from Cunaxa. After the dismemberment of the Byzantine Empire it became, under the rule of the Commeni, a place of considerable note, its palace being famed for its splendor and its court for luxury, intrigue, and immorality. It was also a seat of learning and a resort for learned men who furnished the palace library with valuable manuscripts, while skilful architects adorned the city with costly and elaborate buildings; the writers of the age, among them Cardinal Bessarion, describing in glowing terms its churches and monasteries, its stately towers, and its suburban groves and orchards. The largest of existing churches is that of the Virgin of the Golden Head, a plain but massive edifice now converted into a mosque. A more tasteful structure is the church of Haghia Sophia, with its handsome portico and lofty campanile, whose walls are decorated with frescos descriptive of religious themes. A few leagues from the town is the monastery of Sumelas, founded some fifteen centuries ago at the mouth of a cavern midway in a tall perpendicular cliff. It was rebuilt and richly endowed by Commenus III, whose golden bull is among most valued relics.

In Turkish Armenia Erzeroum, its principal town, is still a place of some importance, though but a shadow of its former self, losing, it is said, at the time of its capture by the Seljuks, in 1201, more than thrice its present population. It is one of the most ancient of Armenian cities, and without exception the dirtiest, with narrow, tortuous streets, unpaved and badly drained, flanked by somber buildings of dark-gray mud-cemented stone. There are many mosques and churches, of which the cathedral is the only one worthy of note as an architectural composition. As the chief emporium for the caravan trade between Persia and Black Sea ports, Erzeroum has its full share of commerce, though sorely hampered by the unsettled condition of the people; for in Armenia Turks and Christians cannot dwell together in peace.

For the three centuries or more during which Cyprus has been in the hands of the Turks, its annals are almost a blank, except for occasional insurrections and massacres, its former prosperity giving place to stagnation and decay; so that the largest town. Lucarna, on the site of ancient Citium, has but 6,000 or 7,000 inhabitants. Though of its antiquities little is known, there have been unearthed many statues and other works showing a strange intermixture of Hellenic and Oriental art. In Crete, or Candia, recent explorations have added much to our knowledge of this ancient land, famed as the birthplace of Olympian deities, as the site of the Minos legend, and as the seat of a civilization so ancient that Lycurgus, it is said, borrowed its laws and institutions. Rhodes, under whose Colossus passed the triremes of the Greeks, has now several lines of steamers calling at its port; for commerce is increasing rapidly, and especially the transit trade. Of this gigantic monument, laid prostrate by earthquake in 224 BC, after keeping guard over the harbor for more than half a century, its enormous fragments were the wonder of the world until after the island was conquered by the Saracens, when the remains were sold for their worth as old metal, and loaded on the backs of 900 camels. As Strabo relates, Rhodes surpassed all other cities in beauty of design and decorative features, containing 3,000 statues, among which were many of exceptional merit, together with paintings by Protogenes and other masters. It was a city of arts and arms, the mistress of the sea, and with vast accumulations of wealth, until, for embracing the cause of Caesar, it was plundered by Cassius, and later reduced to a Roman province.

Miscellany

The foreign indebtedness of Turkey amounted in 1894 to about $660,000,000, in addition to which a war indemnity of $160,000,000 is being paid to Russia in installments of $1,600,000 a year. Taxation is oppressive, chiefly on account of its unequal distribution, and especially for the tithes demanded on agricultural products. In the army, including the militia, more than 700,000 men are available as combatants, and in the navy there are over 100 vessels, most of them of obsolete pattern.

During a visit to Europe the sultan was so greatly impressed with the advantages of railway communication that he at once planned a system which would open up his empire and bring Constantinople into connection with European lines. Concessions, guarantees, and privileges were granted, $100,000,000 being subscribed merely as a beginning while the various, projects included also Asiatic Turkey; so that the visitor might travel almost entirely by rail from London or Paris to the site of Troy or the ruins of the temple of Diana of the Ephesians.

The earthquakes of earlier centuries and the conflagrations of modern times have left but few relics of the former capital of the Byzantian empire and of the earlier sultans.

Around the hippodrome they are most numerous, including the remains of palaces, churches, and columns with which are associated the names of Constantine, Theodosius, Chrysostom, and others of historic renown. In the fire of 1870 more than 3,000 buildings were burned, and it is said that the losses by fire are equal to the entire destruction of the city once every twenty years.

The interior of Asia Minor is a vast tableland nowhere, less than 2,000 feet above the sea except for occasional valleys. It is traversed by many mountain ranges, rising to an elevation of 7,000 to 11,000 feet. Most of the rivers are small, and none are navigable for any considerable distance. The climate of the uplands is dry and the temperature subject to great extremes, large tracts consisting of bare and treeless downs fit only for the pasturage of sheep. In more favored districts are vineyards, orchards, olive and walnut groves, and tobacco plantations, while cotton thrives near the sea-shore and silk is largely produced in the neighborhood of Broussa. What are known as Smyrna figs and raisins are mainly produced in the valley of the Maeander, and opium, madder, and saffron are among the agricultural products. Of domestic animals the camel and buffalo rank first in value; cattle and horses are few and of inferior breed; vast herds of sheep are depastured on the plains, and still in demand is the hair of the Angora goat, from which shawls are made little inferior to those of Kashmir. Minerals are plentiful, but little utilized. The silver and copper mines of the north, and the marble quarries, especially the Phrygian marbles so much in favor with the Romans, are now almost neglected. There are coal deposits near Heraclea, on the Black Sea coast, and still the iron ores in the country of the Chalybes are worked in the same primitive fashion as in the days of the Greeks.

During the reign of Abdul Aziz the expenses of the court kitchens were over $2,500,000 a year.

A few centuries before the Christian era Miletus, whose site near the mouth of the Maeander is now a morass was, by far the wealthiest and most powerful city in Asia Minor, founding itself more than threescore settlements, among which were Cyzicus, Abydus, and Sinope. Of its four harbors, one was spacious, and all were well protected; its Black Sea trade was enormous, and its commerce extended along the entire coast of the Levant. After the revolt of 500 BC which followed the Persian conquest,

its inhabitants were massacred or led into captivity by Darius, whereafter its annals are of no special interest. Miletus was a literary as well as a commercial center, its philosophers including Thales and his successor Anaximander.

By the treaty of Berlin it is provided that the prince of Bulgaria shall be elected by the people, and their choice confirmed by the Sublime Porte with the consent of the European powers, no member of the royal families of Europe being eligible. The principality has an army mustering, inclusive of militia, nearly 200,000 men, and there are a few small vessels of war.

Exports for 1894 amounted to nearly $20,000,000, with imports of about equal amount. The National bank of Bulgaria, with headquarters at Sofia and several branches, has a capital of $2,000,000, furnished by the state, and in each district is an agricultural bank under government control.

When Alemaeon of Athens returned from the temple of Delphi, where he had assisted the royal messengers in presenting the gifts of Croesus, the monarch told him to go into his treasury and take thence what he would, whereupon, as the legend is, the Athenian filled the skirt of his tunic, his boots, and even his hair with gold-dust. Croesus laughed when he saw him so heavily laden that he could barely walk, and said to him, "All this you may have and as much more as you wish." With the gold-producing regions of Asia Minor the Delphic and other Greek temples maintained unbroken intercourse entering into business relations with all the Hellenic colonies, and serving, as I have said, in place of banks.

Europe has standing armies aggregating from 3,000,000 to 4,000,000 men, which cost $1,000,000,000 or more to keep up, producers to pay the bills, and all for the pleasure of such rulers and demagogues as may take delight in seeing bands of men, having no quarrel and scarcely knowing what they are fighting for, meet and butcher each other. Add to this the cost of royalty, nobility, et cetera, with their vast progeny, and the creators of wealth have their hands full. The cost of heavy cannon, per ton, is for cast iron $100, Armstrong $500, Krupp $850, Whitworth $875. At Waterloo the English artillery fired 9,467 rounds, or one for every Frenchman killed.

Section Four

Chapter the Tenth: France, Switzerland

A rich man's purse, a poor man's soul is thine;
Starving thy body that thy heirs may dine.
—Lucillius

Lost riches are bewailed with deeper sighs
Than friends or kindred, and with louder cries.
—Jurenal

Nothing stings more deeply than the loss of money.
—Livy

Prosperity asks for fidelity: but adversity demands it.
—Seneca

It requires greater firmness to sustain good fortune than bad.
—La Rochefoucauld

Fortune is never stable; is always changing; strikes down the prosperous and exalts the lowly.
—Ausonius

Men usually judge as to the prudence of a plan by the result, and are apt to say that the successful man has shown much forethought, and the unsuccessful much want of it.
—Cicero

I know of nothing in the world more sensible than to turn the folly of others to our own advantage.
—Goethe

Can anything be more absurd than, the nearer we are to our journey's end, to lay in the more provision for it.
—Cicero

Happy the man whose wish and care
A few paternal acres bound,
Content to breathe his native air
In his own ground.

Whose herds with milk, whose fields with bread,
Whose flocks supply him with attire;
Whose trees in summer yield him shade,
In winter, fire.

Blest, who can unconcern'dly find
Hours, days, and years, slide soft away
In health of body, peace of mind,
Quiet by day.

Sound sleep by night; study and ease
Together mix'd; sweet recreation.
And innocence, which most does please
With meditation.

Thus let me live, unseen unknown;
Thus unlamented let me die;
Steal from the world, and not a stone
Tell where I lie.

Peopled as it was by barbarous and thinly scattered tribes, which except for a few implements and weapons have left no trace of their existence, the France of aboriginal days has no place in history, no mark even of the usages or speech of those who first inhabited its soil. Far different was it with the tribes that Caesar found there—the brave, mercurial, nimble-witted Gaul, and his kinsman, the phlegmatic and thoughtful Belgian, resembling rather the German in physical and intellectual qualities. From the union of these tribes comes, the modern Frenchman, though not without other race intermixtures. After conquering the Gauls, Caesar became their sovereign, and for more than four centuries the country was subject to Roman domination, at the end of which period hill fortresses and villages of wattled huts, hidden in the heart of swamp or forest, had given place to prosperous cities with Roman customs, cults, and laws, where was spoken in corrupted form the Latin tongue. In the second century came Christianity, spreading quickly throughout the land, though at a much later era St. Martin of Tours found many pagan temples to destroy and multitudes of heathen to convert.

Early in the fifth century we find the Germans settled in Gaul, and somewhat later the Franks, a confederation of Germanic f tribes, first among whom were the Salians, headed by a clan called Merwings, or Merovingians, their chieftain Clovis plundering the country and putting to death without scruple all his more powerful neighbors. Yet to say this wholesale robber and murderer France owes her origin as a nation, her Salic laws, and her feudal system. The Merovingian monarchy reached its culminating point under Dagobert, who toward the middle of the seventh century held splendid court in Paris, the dynasty, except for a nominal existence, coming to an end soon after his death.

Then appeared the Carolingian family, first under Martin and Pepin, and then under Charles Martel, natural son of the latter, his victory at Tours checking the northward incursions of the Saracens, with results that were far-reaching in the later history of Europe. In 771 began the reign of Charlemagne, the great German lord whose deeds and legends were the wonder of the world. After long and successful warfare, on Christmas eve of the year 800 he was crowned emperor of the Romans with the title of Augustus, his authority, accepted alike by Germans and Gallo-Romans, being acknowledged even by the sovereign of the East, the caliph Haroun-al-Raschid, who dispatched to his court an embassy laden with costly and curious presents. The brief remainder of his days Charlemagne devoted to the consolidation and improvement of his empire, with a singleness of aim and nobility of purpose that needed but a few years more of life to stamp him as the founder of an historic epoch; for his activity was many sided, and by later generations was felt the magic influence of his name. Of his three great palaces he preferred the one at Aix-Ia-Chapelle, the townhouse erected on its site in 1353 still containing the splendid coronation hall of the emperors. Adjoining it, where now stands a portion of the cathedral, was a chapel later destroyed by the Normans, and in this sanctuary, which he had founded in the city that he loved so well his remains were laid at rest.

Within thirty years after the death of Charlemagne, his magnificent empire came to an end, and on its ruins arose several European nations, this being a time of confusion and rapine attended with unutterable woes to the body of the people, nine-tenths of whom were little better than slaves. Meanwhile the great lords were growing in power; the bishops lived in luxury in the cities and the abbots in country mansions.

Says the deacon Florus speaking of this period; "A beautiful empire flourished under a brilliant diadem. The Frankish nation shone with a brilliant light before the eyes of the whole world. Foreign kingdoms, the Greeks, the barbarians, and the senate of Latium all sent their embassies thither. Rome herself, the mother of kingdoms, bowed down to this nation. Fallen now, this great power has lost at once its glory, and the name of empire; the kingdom, once firmly united, is divided into three portions; instead of a king we have a kinglet, and instead of a "kingdom a mere fragment of a kingdom."

During the reign of Charles the Bold the Norsemen and Vikings made their appearance on the coasts of France, in their swift, light, craft, pillaging towns and farms, and putting to sea with their booty before any opposing force could be brought against them. Rouen, Nantes, and Bordeaux were plundered. Tours was captured and its abbey of St. Martin burned; the abbey of St. Germain was sacked in sight of the gates of Paris, and in 857 the churches of Paris were destroyed and the abbot of St. Denis led into captivity. Sanctuaries were made the objective point of attack because stored there for safe-keeping were the treasures of the inhabitants, their money, jewelry, plate, and precious stones. Withdrawing themselves on payment of a large sum in gold, these bands of freebooters were succeeded by others, their raids ending only when there was nothing left worth carrying away. Then they settled on the land itself, engaging in husbandry under their chieftain Rolf, or Rollo, to whom early in the tenth century Charles the Simple granted a portion of his territory, with the hand of his daughter in marriage, the Norseman turning Christian and suffering himself to be baptized. Crowds of adventurers followed, and all were provided with the means of earning a livelihood; so that Normandy became one of the most powerful and prosperous of European countries, Duke William in the following century adding the British islands to his continental domain.

With Hugh Capet begins the real history of France as a kingdom, though his rule, disputed by Charles of Lorraine, was confirmed only by the hearty support of the Normans. In Brittany and in the south of France he was never acknowledged, the Aquitanians dating their documents "In the reign of God until there shall be a king." Only through a close alliance with the clergy, whom he loaded with gifts, could he uphold his unstable throne, his entire; reign being a struggle to retain his possessions, or what was left of them after rewarding his followers. More fortunate was his son and successor Robert the Debonair, as he was called; a mild docile, kindly man, the delight of monkish chroniclers for his piety, charity, and feebleness of character.

Each day he fed a few thousand of the poor, and most of his time was passed in prayer and the writing and singing of hymns. He was entirely under the control of the priests, putting away his first wife at the bidding of the pope and taking in her place Constance of Aquitaine, who brought to his court a crowd of followers detested by the clergy and despised by the people for their effeminate tastes and habits. Speaking of the new courtiers, the chronicler Rudulfus Glaber remarks: "We find France and Burgundy overrun by a new kind of people, who were at once the vainest and most frivolous of men. Their mode of life, their clothes, their armor, and the trappings of their horses were all equally fantastic; true buffoons whose shaven chins, small-clothes, ridiculous boots, and indeed their whole appearance announced the disorder of their mind."

In the reign of Philip I began the crusades, a host of French pilgrims under Peter the Hermit starting eastward in the summer of 1096, hoping to exchange for their promised home in Palestine the present miseries of France. But with this great movement the monarch was not in sympathy, either as a

source of glory or of wealth, preferring rather the sale of benefices and the debasement of the coinage, whereby a most dangerous precedent was established for those who came after him. Notwithstanding the attendant loss of life the crusades were a benefit to Europe and especially to France, ridding her of a most undesirable element in her population, arousing a spirit of enterprise among her dormant and down-trodden people. Towns woke into life; many new buildings and especially church buildings were erected and literature began to find a home outside the walls of monasteries, the investigations of Abelard arousing an intellectual activity which at the close of the twelfth century led to the founding of the university of Paris the mother of all, the learned institutions of modern Europe.

During the earlier feudal period the lot of the people had in truth been a hard one. Wars were interminable; for the sword was the only appeal for him who had suffered wrong. The plains were converted into battlefields and the hills into fortresses, where feudal lords surrounded with armor-clad warriors, grew rich by pillage or rapine. Wealth was more often a curse than a blessing; for those who possessed it were liable to be imprisoned and tortured until they surrendered their treasures. There was no commerce, for the roads were infested with brigands and the streets with assassins lying in wait for men with well filled purses; there were no industries, for if any were attempted they were speedily taxed out of existence; there was no legitimate coinage, for most of the lords coined their own money and would take none but their own in payment. Finally pestilence and famine stalked through the land, one or both these visitations prevailing in a majority of years.

Better was the condition of affairs during the reign of Louis the Fat, whose unwieldy bulk was no impediment to his activity. To the towns he granted such privileges as made them the refuge of the community against feudal oppression. Bearing the oriflamme of St. Denis, he marched to battle or siege at the head of loyal and enthusiastic followers, declaring himself the champion of the burgher life which he had created. Thus in the struggle against feudalism the people were on his side, and had his successor been like him, France would have been welded into one great monarchy centuries before it was done. In a word Louis was the first real king of France, a man of noble parts, liberal, unselfish, and a father to his subjects, who felt not his light and easy yoke. Among his public works was the partial restoration of the abbey of St. Denis, the burial place of Frankish and other kings from the days when Dagobert erected there a basilica for Benedictine monks. It was many times altered and restored before the architect of Napoleon III converted it into one of the finest specimens of Gothic architecture.

Philip Augustus, grandson of Louis, shared with Richard the lion-hearted the barren honors of the third crusade, returning homeward after the capture of Ptolemais aweary of such uncongenial sport. Though nine fierce battles were fought before its walls, the fanatical hatred of Christians and infidels had given place to a chivalrous interchange of courtesies, Saladin sending presents of Damascus fruits to the opposing camp and receiving in return Parisian jewelry.

Other wars Philip had, first with the dukes of Burgundy and Normandy, and then with England, more than doubling the royal domain. Then devoting himself to the arts of peace he made of Paris one of the finest cities of the middle ages, erecting the cathedral of Notre Dame, founding the university of Paris, providing the city with markets, improving its streets, and strengthening its defenses. By some he has been termed a great king but not a great man, and this he showed in one of the first acts of his reign, banishing the Jews but allowing them to return on payment of a fine; for like other Christian

monarchs, he regarded men of the Hebrew race merely as instruments for the gathering of gold wherewith to replenish the royal treasury.

Under the care of Louis IX, with whose disastrous expeditions the crusading era comes to an end, the university of Paris rose into high repute and, such men as Roger Bacon, Thomas Aquinas, Art and literature Albertus Magnus being numbered among its students, were freely patronized, and while Robert of Sorbon was founding his ecclesiastical college, the king erected his Sainte Chapelle then the finest, architectural monument of the capital. Louis was the first monarch who summoned burghers to his council, asking their advice on questions of commerce and finance. His laws, based largely on Roman models, were aimed against feudal privileges and oppressions. "Know ye" reads a statute of 1257, "that on the deliberations of our council we have prohibited all wars within our kingdom, all destruction by fire, and all prevention of agriculture."

Philip the Rash and Philip the Fair were the successors of Louis IX, the latter ruling over a larger kingdom than had fallen to any of his predecessors; for Navarre was his by inheritance, and from Edward I of England he received an extensive province in return for a yearly rental of 3,000 livres, which rental he never paid. Philip was always in want of money, and so long as it might be had was entirely indifferent as to the means. He taxed whom and whatsoever he could, from the nobles and clergy down to the peasantry, and now began the flood of taxation which culminated in the days of Louis XV; from the Jews he extorted the little that was left after the fines and confiscations of former years; he tampered with the coinage, sold privileges to towns, and in a word converted into cash about everything that was convertible. Of all his measures none have been so universally condemned as the destruction of the order of Templars and the seizure of their property. As the representatives of the crusaders and of the nobility of France, this military fraternity possessed many thousands of manors and castles, extending almost throughout Christendom, its members united under the control of a grand master in firmly cemented organization. It was moreover a wealthy order, with 150,000 gold florins in its treasury, in addition to countless vessels in gold and silver. On an appointed day all the Templars in France were arrested, on charges of impiety and immorality; many were tortured, and more than sixty were burned at the stake, among them the ill grand master and other dignitaries, who suffered fearful things in their dungeon cells. During the reign of Philip the nobles met with a crushing defeat at the hands of burghers on what was known as The Day of the Spurs, when 4,000 gilt spurs were hung as trophies in the cathedral of Courtrai.

Passing over the Hundred Years' war and the two centuries of war which followed, let us turn to the annals of the modern kingdom, when early in the Bourbon dynasty Richelieu appears on the scene, and for nearly a score of years guides the destinies of Louis and of France.

The following words attributed to the great cardinal represent, whether uttered by him or not, the guiding principles of his cold and resolute policy. “I venture on nothing without first thinking it out; but once decided, I go straight to the point, overthrow or cut down whatever stands in my way, and finally cover it over with my cardinal’s robe.” As to this policy it may further be said that, while in his earlier days it was his aim to build up a powerful monarchy based on the good will of the people, once that monarchy was established the people were ignored, and the nobles and clergy alike made subject to his iron rule. At Rochelle he destroyed the power of the Huguenots, long a standing menace to the Bourbons; elsewhere he crushed out all serious resistance, and in Italy his successful, if somewhat theatrical campaigns, reduced Savoy to submission. Against Spain and the Spanish Netherlands his

wars were less successful, though the last battles of the Thirty Years' war were won by France, and as Michelet remarks, "the cession of Sedan was the last present made by Richelieu to France."

While Richelieu exalted the country which he loved so well and ruled so harshly almost into the position of the second empire, it was only accomplished after many sacrifices inflicted with merciless severity. He greatly increased the burdens of France; for the purses and persons of nobles and burghers were alike at his command. The church and the parliaments were subservient; the states-general was silent, and no longer was disputed the sovereign's right to levy taxes and issue arbitrary decrees. Thus was destroyed all healthy civic life, all the better elements of a society which, unfettered and working in harmony, might have given prosperity to the nation through the unfolding of her splendid resources, might have secured for her the undisputed sovereignty among the nations of the world. If Richelieu recreated France it was not a healthful recreation, and in the despotism of the eighteenth century we read a sad comment on the effects of his policy, as in the in revolution we read the story of its punishment, common with his successor Mazarin Richelieu was a friend to literature and art, some of the greatest men of this the great age of letters accepting his patronage, though others of more independent character refused his honors and rewards. By him were established the French academy and the royal printing press, while at his palace were to be found the best artists of the day, though there was seen only the splendor and not the genius of art.

It was not until the death of Mazarin in 1661 that Louis XIV began to reign; for though twenty-two years of age and for eighteen years a king, he had been but the nominal ruler of subjects governed by the cardinal. From him he received the lessons in kingcraft and dissimulation on which he framed his career taking up without flinching the heavy burden of kingly duties and ceremonies which he sustained for more than half a century.

He was a man of mediocre ability and of somber temperament, persistent even to obstinacy, and with a liking for the details and minutiae of public business and public ceremonials, thus well adapted for a court where life was one endless succession of dull routine and ceremonial. When handing the reins to his former pupil, Mazarin had explained to him the desperate condition of the public finances, recommending Colbert, a man of Scotch descent and with the strict common-sense business methods of a Scotchman, as the one best fitted for the occasion. Then he offered him his entire fortune, amounting as money is now valued to more than $50,000,000. This the monarch refused, and with a portion of it was founded the college of the Four Nations, to which was also bequeathed the magnificent library built up on Richelieu's collection. During his lifetime the cardinal founded an academy of painting and sculpture, introduced Italian opera into Paris, and had he done as much for his country as for science, literature, and art, would better have deserved his brilliant reputation as a statesman and a diplomatist.

Colbert was confronted with an empty treasury, a yearly deficit of 22,000,000 livres, and a financial system under which half the taxes were consumed in collecting. This he soon remedied, dealing sternly with officials, abolishing all useless offices, and in a few years reversing the condition of affairs, so that a surplus took the place of a deficit, and meanwhile the burdens of the people were considerably lightened. Then followed some of the best years that France had seen; for his financial measures were but the groundwork on which to rear the superstructure of national prosperity. Manufactures and commerce were his care, with the means of communication necessary for their development; but for agriculture, then as now the mainstay of the country, he would do nothing.

Royal factories were established, with bounties for the production of articles of luxury as mosaics, cabinet-work, laces, tapestries, silks, and cloth of gold. Roads and canals were built or improved and commercial enterprises set on foot, partly with a view to colonization. For Louis a magnificent palace, surrounded with parks and gardens, was erected at Versailles the former, hunting lodge of the Bourbons, the total cost exceeding 1,000,000,000 francs. There were the two Trianons, Grand and Petit, the former with richly furnished apartments and valuable works of art, including some of the malachite vases presented to Napoleon by Alexander I of Russia. Le Petit Trianon, originally built of porcelain as a summer-house for Madame de Montespan, remarkable chiefly for its associations. Here Louis XVI passed the happiest days of his troubled reign, while Marie Antoinette fed her chickens milked her cows and, played the part of shepherdess at her private theatricals. Here also Napoleon sojourned for a time before his divorce from Josephine, of whom he said, "Her memory will always remain engraven on my heart." By Perrault was begun the stately colonnade of the Louvre, and from Rome Bernini and other architects were summoned to aid in building up the new metropolis. Many and costly were the richly decorated structures reared during Colbert's administration; quays, plazas, and triumphal gates were among his improvements, and never before had Paris been so well paved and lighted. By him were established academies of science, architecture, and inscriptions; an observatory was founded, and to literature and art he extended liberal though baneful patronage; for Colbert stifled genius, attempting to guide and control it as he would control a band of workmen.

If Louis XIV was not a great king, he was a great actor of royalty, and none of the Bourbons could have played so well his part of le grand monarque. Perhaps he was never seen to better advantage than at the masked balls, theatrical entertainments, and apartments given at the palace of Versailles, the last being held in winter and in the nature of a reunion attended by the nobles of the court and by young and beautiful women resplendent with jewelry and diamonds. In summer royal supper parties were followed by boating on the canal in illuminated gondolas, Madame de Maintenon always taking her seat near the king, through whom, as his wife, though never publicly acknowledged, her power was widely felt. The parks and grounds of Versailles presented a brilliant spectacle; nor was there less of splendor when court was held at Marly, or Trianon, the members appearing in rich attire on horseback or in handsome carriages.

Splendid also were the fetes held in the palace, as at the marriage of the duke of Burgundy to the daughter of the king of Sardinia. The costumes of lords and ladies, of princes and princesses were of exceeding richness and ablaze with precious stones, a small apron worn by the bride costing a thousand pistoles. The gallery was illumined with thousands of wax tapers, whose lights were multiplied by mirrors, and through a contrivance known as tables ambulantes, flower gardens, fruit-laden trees, and exotic plants adorned this midwinter festivity.

A few months after the death of Louis, John Law appears on the scene, his project for a bank which should issue paper money, control the commerce of the nation, collect its taxes, and meet its obligations, commending itself to the minister of finance, who saw in truth no other means of escape from the frightful incubus of debt. First of all a private bank was founded, and this answering well was followed by the Banque Royale, of both of which Law was manager, the note circulation of the latter, guaranteed by the king, reaching a total of 110,000,000 livres. In connection with it was the great Mississippi Company, with its grant of Louisiana, as yet an unknown region but reputed to be marvelously rich. Its shares of the par value of 500 livres were greedily taken, and then began a speculative mania such as has never been witnessed before or since. So-called securities, absolutely

worthless, daily and hourly increased in price; everyone was becoming rich; poverty was banished from the land, and on the soaring wings of this counterfeit wealth the kingdom, and its subjects would be raised from bankruptcy to opulence. Law purchased several titled estates and became a name more puissant than royalty itself monarchs, and the proudest of European aristocracy paying court to him as the embodiment of financial genius. The national debt of 1,500,000,000 livres, was but a trifle and could be redeemed in notes which would doubtless be invested in the company's shares to be issued in quantities to suit. In December 1719 these shares had risen to 20,000 livres, or forty times their nominal price, representing a total valuation of 12,000,000,000 livres. Then came the inevitable collapse, followed by universal confusion and distress, the nation being left to struggle under a load of embarrassments which threatened the overthrow of the monarchy.

The inglorious reign of Louis XV under the mistress-government of Madame de Pompadour prepared the way place for the disasters which befell his grandson, a kindly, well-meaning, but excessively stupid man, one utterly unfitted to grapple with the complex problems of his age.

The reign of Louis XVI began hopefully though aimlessly, the king and queen playing the part of Paul and Virginia amid their idyllic court at Petit Trianon, where were occasional gala days and always a little alms-giving. Turgot, his trusted but unpopular minister of finance, he was compelled to dismiss, exclaiming with a sigh, “Turgot and I are the only men in France who care is for the people." But the people were beginning to care for themselves, no longer content to put their trust in princes. Necker for a time arrested the impending crisis; but after his resignation Marie Antoinette became the virtual ruler of France, selecting her ministers with womanly impulse and lack of judgment. One of them, after borrowing 35,000,000 francs within little more than two years, left in the treasury, as related by his successor Calonne, " two little bags of gold with 1,200 francs in each," the deficit in revenue, meanwhile, increasing until for 1786 it exceeded 160,000,000 francs. "There was neither money nor credit,” says Calonne; the current debts of the crown were immense; the income pledged far in advance; the resources dried up; property valueless; the coinage debased, and the nation on the verge of bankruptcy. By way of remedy he proposed a still more profuse expenditure, in accordance with the maxim, "Waste is the true alms giving of kings.” The queen must have all she wanted to satisfy her extravagant frivolities and love of amusement; but these were carried to such extremes that the anger of the populace was kindled against her, and now the end drew near.

The procession held on the day before the opening of the states-general in 1789 is thus in described by the Marquis de Ferrieres, one of those who were present. The streets were hung with the embroidered tapestries of the crown; the French and Swiss guards formed an unbroken line from the cathedral of Notre Dame to St. Louis; the balconies were adorned with costly fabrics, and the windows crowded with spectators of all ages and of either sex. Bands of music filled the air with melodious strains, intermingled with the rolling of drums, the clang of trumpets, and the chant of priests. The nobles appeared in cloth of gold, silk cloaks, and lace cravats; the bishops in purple robes, and the clergy in surplices and mantles. The king was seated on a richly decorated platform; below him were the princes, ministers, and officers of state; opposite was the queen; the princesses and ladies of court, superbly dressed and glittering with diamonds, forming a magnificent retinue.

Three months later came the storming of the Bastile, followed by French revolution, the story of which has been a thousand times related.

A few months after the decapitation of Louis XVI the city of Toulon, delivered by the royalist party into the hands of the English, was besieged by a French army under Dugommier. Among those who distinguished themselves at this siege was a young lieutenant of artillery whom Dugommier calls Buona Parte, stating that he was of great assistance in rallying the troops and pushing them forward. Two years later Buona Parte, better known as Napoleon Bonaparte was, ordered by the national convention to suppress the revolt of the revolutionary sections, and this accomplished through his historic whiff of grape-shot he was placed in command of the army of Italy, composed of some 20,000 ragged and barefooted veterans. As France had undertaken a general crusade against monarchy, so did Napoleon interpret his powers as a license for universal conquest and rapine. "Soldiers," he said, "you are naked and ill-fed; I will lead you into the most fruitful plains in the world. Rich provinces, great cities will be in your power. There you will find honor and fame and wealth." He kept his word, carrying out to the letter his maxim that war must support war, and enriching his army by pillage and forced contributions levied with merciless rapacity. For twenty years the history of Europe is little more than a history of the Napoleonic wars, at the end of which the nations were completely drained of their resources, England alone having expended several hundred millions of pounds, while other powers were reduced to the verge of insolvency. Until Europe finally rose against him, every year and almost every month of this war was marked by new aggressions. At Bern in the spring of 1798 treasure was seized to the amount of 40,000,000 francs; almost at the same time the papal government was overthrown; its treasury plundered, and the aged pontiff led into captivity. Thus were furnished the funds for the Egyptian campaign, in which, as he said, "the repulse at St. Jean d' Acre changed the destiny of the world."

The victories of Marengo, of Austerlitz, Wagram. Jena, and Friedland placed the richest countries of Europe at his feet. Enthroned as emperor in 1804, and in the following year usurping at Milan the iron crown of the Lombards, he distributed kingdoms and principalities among his kinsmen, generals, and politicians, reviving feudal lordships and titles of nobility.

His brothers Joseph and Jerome he made kings of Spain and Westphalia; Berthier became prince of Neufchatel with a revenue of 1,250,000 francs; Davoust, Bernadotte, and others receiving incomes of 500,000 to 750,000 francs, and to more than thirty hereditary dukes from 100,000 to 250,000 francs a year were paid out of the national treasury. To support this wasteful system Europe was laid under contribution, the heaviest burden falling on Austria, whose indemnity after the battle of Wagram was fixed at 75,000,000 francs, while her capital, together with Milan. Mantua, and other Italian cities, were stripped of their choicest works of art. The Russian campaign and the burning of Moscow, compelling his homeward march across 800 leagues of snow-covered plains, without provisions and in the depth of the severest winter known was the real cause of Napoleon's downfall. Of the host which accompanied him, 125,000 men were slain in battle; 130,000 perished of hunger, cold, and disease; nearly 200,000 were taken prisoners, and only 30,000 returned to their native land. The abdication of the emperor in 1814 was followed by a treaty which cancelled his conquests and dismembered his country; while still more disastrous was that of the following year, providing for a further surrender of territory and an indemnity of 700,000,000 francs. Neither in expenditure of life nor treasure can the cost of the Napoleonic wars be estimated, though of both the sacrifice was appalling; Austria alone losing 3,500,000 men, while France was left almost without male population, except boys and old men . In view of the facts it sounds like irony, the words in the will of this wholesale butcher, ever ready to sacrifice his country to his lust of power, yet leaving instructions that

his ashes should repose on the banks of the Seine in the midst of the people whom he had loved so well .

Louis XVIII was one of the best as Charles X was one of the worst of the Bourbon monarchs; the former noted for his moderation, ability, and scholarship; the latter for his intolerance, stupidity, and ignorance, a man of whom it has been aptly remarked that "he could never learn and never forget."

After the two days' revolution of 1830, commemorated by the stately column of July, began the reign of Louis Philippe, during which were erected the fortifications of Paris almost as they are today. It was a troublous reign, ended after a long period of contention by the revolution of 1848; for the people felt that Louis had done nothing to relieve the prevailing distress, nothing to redeem his promise that he would rule by the sovereign will of the people, not as king of France but as king of the French.

Notwithstanding the coup d'etat which preceded his election as emperor the accession of Louis Napoleon was hailed with rejoicing by a great majority of the people. Though his wars were frequent, we may well believe that he was sincere in expressing his desire for peace. "The empire menaces no one," he said, "and desires only to develop its vast resources in tranquility and peace." Assuredly he did his best for the development of these resources, encouraging industries, sweeping away the barriers that stood in the path of commerce, affording employment to myriads of workmen, and introducing an era of prosperity which contrasted strongly with the misery and want of the regal period. Paris he virtually rebuilt; doubling its area, opening parks and pleasure grounds, converting its narrow and tortuous streets into spacious boulevards, and building new thoroughfares lined with costly and handsome structures. Additional markets, harbors railroads, canals, churches, and theaters were constructed, while those which were already in existence felt the touch of his hand. Museums, colleges, art-galleries, and above all the two great international exhibitions held during his reign attested the progress of the nation in all that contributes to national wealth and well-being. But of the improvements made by Louis Napoleon and by his uncle Bonaparte, I shall have occasion to speak later in connection with Parisian annals.

In 1870, forced into war by the clerical party and probably also by his wife Eugenie, an ambitious woman and always under priestly control, Napoleon III met at Sedan his Waterloo, and a year or two later ended his days at Chislehurst.

A scholar and dreamer rather than a statesman, and surrounded with adventurers from whom he selected his ministers and generals, he brought humiliation and shame on the country whose throne he had usurped, together with loss of territory and the payment of the largest indemnity ever exacted from a vanquished foe. The siege of Paris by the Prussians was closely followed by the outbreak of the commune, with its attendant horrors and atrocities, its wholesale massacre of citizens, and its deliberate system of destruction. The finest and most costly of public buildings were given to the flames by men and women carrying cases of petroleum, and the entire city was threatened with obliteration, when, after many days of street-fighting, the national troops put an end to the reign of terror. From this double disaster it was thought that Paris could not recover, and for several years the assembly met at Versailles, where also were the headquarters of the government; but presently confidence returned, and with it came prosperity and increase of population; the demolished buildings were restored; many new and costly structures were erected, and of the international expositions of 1878 and 1889 there are permanent memorials in the magnificent palace of the Trocadero, and the Eiffel tower, nearly 1,000 feet in height.

Under the third republic France has lived at peace, and that financially at least its affairs have been well managed is shown by the surplus remaining in the treasury at the end of each fiscal year. During the reign of Louis Philippe the deficits in revenue amounted to 520,000,000 francs; the republic shows in 1895 a total surplus of nearly 200,000,000 francs, notwithstanding the payment of an enormous war indemnity and the loss by the people of 1,000,000,000 francs through the failure of the Panama Canal project.

Of all the great cities of Europe none had a more lowly origin than Paris, now the greatest and fairest of European capitals, the Mecca of the fashionable world. For centuries it was but a village built on an islet in the Seine by an obscure and feeble tribe known as the Parisii, when after the subjugation of Gaul Cæsar appointed their territory a meeting place for Gallic deputies. Lutetia it was called, and still was known by that name when Constantius Chlorus and Julian the Apostate sojourned for a while on the left bank of the Seine, where were then several buildings, including an imperial palace and an amphitheatre whose foundations, unearthed in 1883, would suggest a population of some 25,000 souls.

It was not until 508 that Paris became the political center of France, King Clovis making it his capital, and among the first acts of his reign erecting as his burial-place the basilica of St. Peter and St. Paul, afterward the abbey of St. Genevieve and now the Pantheon still, a place of worship though formerly used as a memorial temple and mausoleum for eminent men. During the Merovingian dynasty the city was visited by many calamities, conflagration being followed by famine, for the relief of which the church plate was sold by Bishop Landry, the reputed founder of the Hotel-Dieu. By Childebert was founded the basilica of Notre Dame, reconstructed in the twelfth century as a cathedral and many times altered and restored. Though with many structural defects, it is an imposing edifice, 426 feet long by 164 in width, with a central fleche more than 300 feet high, its main facade, surmounted by massive towers, ranking as the architectural masterpiece of the age. Of the sculptures which adorned its recessed portals, those which have survived the ravages of the revolution are among the best of early Gothic designs, as also are the carvings on the principal entranceway representing the day of judgment. Five naves, rich in columnar ornaments, traverse the entire building, and the facades of the transept are richly ornamented with thirteenth century work. The interior is handsomely decorated; but except the choir screen all is modern. During the great revolution most of the sculptures were destroyed and the cathedral suffered many indignities, the commune also leaving its mark on Notre Dame, rifling its treasury and using the building as a military depot.

Under Charlemagne Paris lost for a time its position as the capital of France, until Norman invasions called attention to its importance as a stronghold and strategic center. During the reign of Charles the Fat the city was besieged and its suburbs burned by Norman freebooters, the monarch paying for its ransom a good round sum in gold. In the reign of Hugh Capet it again became the capital, and so remained, increasing in wealth and population with the establishment and growth of institutions which laid the foundations of its greatness. By Philip Augustus, who has been termed the second founder of Paris, was erected on the present site of the Louvre a castle with strong donjon, or keep, converted into a royal mansion by Charles V, though of both structures all traces have long since disappeared. Louis IX, or St. Louis as he is commonly called, rebuilt as his residence the palace of La Cite, among its remaining buildings being the Palais de Justice, whose Greek facade, completed in 1870, is one of the most beautiful conceptions of modern art. Near it is the Sainte Chapelle, already

mentioned, erected as is said for the reception of the crown of thorns, its stained glass windows of thirteenth century date being among the finest specimens of church decoration.

The Bastile, originally intended only for the protection of the St. Antoine gate, was built by Charles V, to whom the National library owes the nucleus of its present collection of 3,500,000 volumes and 160,000 manuscripts, the first printing press being erected nearly a century later in the reign of Louis XI. The palace of the Louvre was founded by Francis I in the style of the French renaissance, of which indeed it was the earliest specimen. The work was continued by Catherine de Medici, Henry IV, and Louis XIII, Catherine also laying the foundations of the Chateau des Tuileries; but these structures belong for the most part to a more modern date. Both are rich in historic incidents, and it was in one of the chambers of the Louvre that Charles IX signed the order for the massacre of St. Bartholomew. Though several of the monarchs held court in Orleans and other cities, Paris continued to increase both in political and commercial importance. Says one of the leading chroniclers of his age, writing about the year 1560, "Paris is one of the most famous capitals in the world, as well for the splendor of its parliament as for its institutions of learning, besides the mechanic arts and the marvelous traffic which have made it very populous and rich.” At this era were erected the first of the great mansions or hotels for which the city is famous, communication between the banks of the Seine being improved by the building of the Pont Neuf, now the oldest of the Parisian bridges though still bearing its original name. Especially on the right bank of the river was the influx of citizens felt, outlying villages being converted into suburbs and enclosed within bastioned walls.

By Marie de Medici, widow of Henry IV, was built the palace of the Luxembourg, which adorned and enlarged by Napoleon and Louis Philippe was used as the senate chamber. In the Salle du Trone are many large pictures relating to the career of Bonaparte, and in the Musee is a collection of the works of living artists. The gardens, though greatly reduced in extent to make way for modern improvements, are handsomely adorned with fountains, flowerbeds, columns, and statuary in marble and bronze. Forming a portion of the group are the Theatre de I’Odeon and the observatory, through the center of which runs the first meridian of Paris. During the revolution, when many of the finest works of art were destroyed, the palace was converted into a prison, furnishing its daily quota of victims for the guillotine, while in the gardens were fair and fashionable women, many of them disguised as beggars, awaiting their chance to give or receive some furtive token of affection.

The Palais Royal, originally intended as the mansion of Richelieu and styled the Palais Cardinal, had many changes of name and occupants before its destruction by the commune and its later restoration. Here lived Anne of Austria, whose grandson, Philip of Orleans, held brutal orgies in the company of women without virtue and men without a name, Philippe Egalite imitating his grandsire in debauchery and riotous living. After being used by Napoleon for the meetings of the Tribunate, it passed into the possession of Louis Philippe, who gave there a magnificent ball almost on the eve of the revolution of 1830. The building is of historic rather than of artistic value, except perhaps for the Galerie d’ Orleans, a spacious arcade paved with marble and roofed with glass. The ground floors of most of the buildings are used as jewelers or other shops, and the garden which they enclose is hardly deserving of the name.

By Richelieu was also rebuilt the church of Sorbonne, and from this period dates the origin of the Place Royal, now the Place des Vosges, and the Jardin des Plantes with its zoological and botanical

gardens, its museums of natural history and science, its library, laboratories, and lectures by the foremost of Parisian professors.

To Louis XIV and the two Napoleons are mainly due the splendor of modern Paris, and of the principal monuments erected by each, as well as those of a later date, a brief description is here in place. In addition to the imposing structures reared by the grand monarque, wealthy citizens, as Voltaire relates, built a thousand splendid edifices; so that as seen from the Palais Royal two new cities had sprung into being each finer than the one before in existence. But if Louis XIV added much to the appearance of the capital, Louis Napoleon was its Augustus, completing the transformation begun toward the close of the monarchy, reconstructing, as I have said, several of the quarters, and building or enlarging and decorating many of the palaces and temples of worship, industry, and art, many of the spacious boulevards interspersed with parks and pleasure-grounds which are the pride of the Parisians and the delight of those who come from afar to sojourn in this home of art. Such improvements could not be accomplished without the destruction of many buildings of historic interest, even mediæval churches and monasteries being cleared away to secure uniformity of plan; but while Napoleon has been accused of vandalism, it is not by the citizens themselves, who think more of present comfort and profit than of all the architectural monuments of the past.

The Louvre ranks first among the public buildings of Paris, not only as an architectural composition, but for its galleries of art, the finest in Paris and probably the finest in the world. In 1805 the entire group of buildings was restored by Napoleon I, who also opened a portion of the Rue de Rivoli and began the connecting wing between the Louvre and the Tuilcries, completed by Louis Napoleon at a cost of 75,000,000 francs. As now it stands, the palace is in the form of a quadrangle enclosing a court nearly 400 feet square, its eastern facade, 550 feet in length, with its handsome colonnade of Corinthian pillars, being completed in 1665 by Claude Perrault. As reminiscences of mediæval towers are pavilions in the centers and on the corners of the facades, the one on the western face leading into the square formerly known as the Place Napoleon, where are statues of eminent Frenchmen.

Adjoining the courtyard of the Tuileries is the Place du Carrousel with its Arc de Triomphe erected by the first emperor in imitation of the arch of Severus at Rome. The buildings fronting on the Seine, connected with the quadrangle by the pavilion of Henry IV, are in more ancient and elegant style than those which face the Rue de Rivoli, though the additions made by the Napoleons, with their showy fronts, Corinthian half columns, colossal statues, and allegorical sculptures, were intended to harmonize with the older portions.

The Louvre collections date from the time of the French renaissance. Francis I was one of its founders, and in the reign of Louis XIV there were many valuable contributions; for then it first became the fashion among wealthy families to gather works of art. During the revolution the contents of royal palaces were transferred to the Louvre galleries, while the victorious armies of Bonaparte returned from their campaigns laden with the masterpieces of Italian and German art. Though on the conclusion of peace many of them were restored to their owners, there yet remain many large and valuable pieces. In the time of the commune the Imperial library with its 90,000 volumes and its precious manuscripts was destroyed, and the palace itself with its priceless treasures narrowly escaped obliteration.

Among the collections of ancient and mediaeval sculptures are the Venus of Milo the Minerva of Velletri, the Lycian Apollo, the Mars of the Borghese collection, Apollo and Marsyas, Antinous

surrounded by Roman emperors, and a fragment of the Parthenon frieze, with works by Michael Angelo, Germain Pilou and others, special chambers being devoted to Jewish antiquities and Christian monuments. The best of modern sculptures are the portrait busts of Coyzevox and the marble statues of Chaudet, Bosio, and Canova. In the picture galleries, more than half a mile in length, all the great schools of painting are represented by masterpieces.

In the Italian section are many of the works of Raphael, Titian, Perugino, Leonardo da Vinci, and Correggio; in Flemish art are Rubens scenes from the life of Marie de Medici, still showing their richness of coloring and lifelike vigor of composition; of the Dutch masters Rembrandt is best represented, and of German artists there are Holbein, Albert Durer and Van Dyck. Spain has here some of the best canvases of Murillo and Velasquez, and in the French galleries may be studied the choicest treasures of several centuries.

On the ceiling of the Apollo gallery, the architectural gem of the Louvre, is the painting by Delacroix of Apollo's Victory over the Python, from which it takes its name. Though both on walls and ceilings are many works of art, it is noted rather for its collection of royal gems and jewelry, with specimens of goldsmith’s work, enamels, and articles of faience. There are vases of crystal and precious stones, of sardonyx, jasper, and lapis lazuli; there is the jeweled casket of Anne of Austria, the crown of Louis XV, and the crown worn by Napoleon I at his coronation, near which are equestrian statuettes in enameled silver and basalt; there are the regalia of Bourbon and other monarchs, the sword and scepter of Charlemagne, and the signet ring of Louis the Saint. In glass cases are many beautiful specimens of art manufacture, and in book-bindings is a twelfth century production, silver-gilt and adorned with jewels and intaglio figures. Of enamels there are the mirror and candlestick of Marie de Medici, the breviary of Catherine de Medici, and many articles from the Sauvageot collection, one of them a basin in the center of which is a large cameo of Ferdinand III, surrounded with concentric rings of cameos portraying the features and armorial bearings of the princes of the house of Austria. In the Salle des Bijoux adjoining are curious ornaments and trinkets, from golden crowns to golden hairpins, and of ancient or mediaeval date. There are rings and earrings of Greek and Roman workmanship; there is the gold signet ring of one of the Ptolemies; there is an Etruscan helmet, a horned head and other representations of Bacchus, with golden and jeweled necklaces, bracelets, pendants, amulets, and trinkets sufficient to bedeck a score of titled dames.

The Egyptian museum contains by far the most valuable collection of its kind, and nowhere else can be studied to such advantage the arts and customs of the most ancient people in the world. In the Assyrian museum is a part of the remains exhumed by Layard and Botta, showing fragments of stately palaces, with the king surrounded by his court and with hunting scenes and scenes of the battle and the siege. In other chambers are collections of Greek antiquities, of Etruscan vases, and of ancient and mediaeval bronzes, porcelains, and carvings.

The gallery of drawings is second only to that of the Uffizi palace in Florence, and among its 40,000 or 50,000 specimens are the works of many of the great masters. Nor should we forget the naval and ethnographic museums, and the Davilliers and Lonoir collections, the former consisting of costly furniture and tapestries and the latter chiefly of jewelry, precious stones, and miniatures.

Among other museums and galleries the Palais des Beaux Arts, with its school for instruction in the fine and decorative arts, contains many valuable treasures; but its principal use is for educational purposes, the prize-winners completing their education in Rome at the expense of the government.

The Musee de Cluny et des Thermes, the former founded by Benedictine abbots and the latter by the emperor Constantius Chlorus, has a large collection of Roman and Gallic antiquities and of mediæval specimens of art and artistic handicraft. Here are sculptures in marble and alabaster, carvings in ivory and wood, paintings, enamels, bronzes, and the richest of furniture, tapestries, and jewelry. Worthy of special mention are a gold altar-piece belonging to the eleventh century and a massive golden girdle with bracelets, rings, and trinkets belonging to the Gallo-Roman period. In the Carnavalet museum, the former mansion of Madame de Sevigne, is gathered much that is of interest relating to the history of Paris and in the Musee, historique at the palace of Versailles, the mere founding of which cost 15,000,000 francs, history is represented by paintings gathered from the Louvre and other palaces, with additions by modern artists.

The palace of the Tuileries, so called because its site was once used for the making of tuiles, or tiles, was founded, as I have said, by Catherine de Medici, though not completed in its earliest form until many years later. While the sovereigns of France resided here at intervals, it was first used as a permanent residence by Bonaparte, afterward becoming the official headquarters of the ruling monarch.

As an architectural composition it was of no special interest; but among all the great structures of Paris there are none so rich in historic associations. In the first revolution, when surrendered by the Swiss guards at the bidding of the king, its treasures were stolen, its furniture wrecked, and of the palace itself not one stone was left standing upon another. In the revolution of 1848 it was a second time pillaged and wrecked, and there again monarchy met its deathblow, Louis Philippe abandoning his palace to a raging mob in the hope of allaying their fury and preserving the throne for his grandson, the count of Paris. Finally the Tuileries was one of the first edifices selected for destruction by the commune, petroleum and barrels of gunpowder being placed in readiness for their infernal plan, which included many of the finest buildings in the capital, both public and private. As the national troops were forcing an entrance into the city, the torch was applied to it at several points, and a few hours later, except the Flora pavilion and the connecting galleries, only a heap of smoldering ruins remained. Apart from sculptural embellishments, the Jardin des Tuileries remains almost as it was when first laid out in the reign of Louis XIV. In the Allee des Orangers, rows of orange trees diffuse their fragrance over the site where in the reign of terror a patch of potatoes was planted.

The Palais d' Elysees, the former residence of Madame de Pompadour, was converted during the first revolution into a government printing office, and under the directory was rented to keepers of gaming tables. After being enlarged and improved it was occupied by Napoleon III, and later by the presidents of the republic. The Champs Elysees in its proper sense is now but a miniature par, yielding much of its space to the Palais de l' Industrie, where in 1855 was held the first international exposition, and where now are held the Salon exhibitions of painting and sculpture. Its name is applied, however, to one of the finest avenues in Paris, lined with handsome buildings and extending from the Place de la Concorde to the Arc de Triomphe de l' Etoile.

The Place was first named after Louis XV, to whom, after the Austrian war of succession, a bronze equestrian statue was erected on what was then waste ground. After the destruction of the Tuileries by a revolutionary mob, this monument was melted down and converted into two sous pieces, a terracotta figure of the goddess of liberty taking its place. Here the guillotine continued its bloody work with the execution of Louis XVI, after whom fell beneath its stroke nearly 3,000 victims. The

chief attraction of the plaza is the obelisk of Luxor presented by Mohammed, a famous but somewhat expensive monument, its removal and erection costing 2,000,000 francs. Another feature is the fountains and statuary, the figures representing the principal cities and industries of France, while along the enclosing balustrades are rostral columns serving as candelabra. The great triumphal arch of l' Etoile, designed to commemorate the victories of Bonaparte, was completed by Louis Philippe from designs approved by the emperor, its cost exceeding 10,000,000 francs. Among the subjects sculptured on its face is one of the masterpieces of Rude, the Marseillaise. In honor of his grand army Napoleon ordered the unfinished church of the Madeleine to be converted into a temple of Glory; but this was not completed until 1842 after an outlay of more than 13,000,000 francs, its plans being unaltered though still used as a place of worship, the statues of many saints occupying the niches of its massive Corinthian colonnade.

The Hotel des Invalides is one of the most conspicuous buildings in Paris, the dome of its church rising 340 feet from the pavement to the summit of its cross. Beneath it is the tomb of Napoleon I, circular crypt with walls of polished granite adorned with marble reliefs, between which are grouped as trophies the flags of conquered nations. On a mosaic pavement resembling a wreath of laurels and inscribed with the names of many victories, rests the sarcophagus of the great general, a single block of sandstone weighing nearly 70 tons. The main building, covering with its spacious plaza more than 30 acres, was founded by Louis XIV for the reception of soldiers disabled by wounds or retired after a long term of service. Most of the rooms are now used for other purposes, including a library of 40,000 volumes, and the so-called Artillery museum, with an ethnographic gallery and specimens of ancient and modern weapons.

The grand boulevards, extending for three miles in unbroken line from the Madeleine to the Bastille, are the finest, as well as the busiest and most fashionable quarter, containing the more showy cafes, shops, and theaters. In the heart of business are such buildings as the bank of France, and the Bourse, with its allegorical statues and ambitious design, the peristyle representing Vespasian's temple in the Roman forum. These and adjacent thoroughfares are traversed daily by 30,000 vehicles, and at night are brilliantly lighted, while the shade trees which line them are carefully preserved, those which are killed by gas being replaced by full-grown substitutes transplanted at great expense. In the Place des Vosges is a marble equestrian statue of Louis XIII, and in the square where ends the Boulevard du Temple is a fountain adorned with spouting lions, its basin 100 feet in diameter. The Porte St. Martin in the boulevard of that name is in the shape of a triumphal arch, 57 feet in height and length, reliefs and inscriptions commemorating the victories of Louis XIV in whose honor it was founded. For the same purpose was erected the triumphal arch of St. Denis, a loftier structure and adorned with obelisks covered with military trophies in relief. The Boulevard des Italiens is one of the most crowded of Parisian avenues; for in this vicinity are the quarters of several clubs, many fashionable shops, and some of the best hotels and cafes.

Nearby is the Place de l' Opera, on the northern side of which is the Grand opera house, one of several streets converging in this thronged quarter leading to the Place du Theatre Francais.

The Grand opera house is one of the most elaborate and costly buildings in the world, 50,000.000 francs being expended on its construction, which lasted for many years. It was delayed from many causes. The corner stone was laid in July, 1862, and the work of pumping out the water before the foundations could be laid was a twelvemonths task. During the Franco-Prussian war the still

unfinished building was used as a hospital, a storehouse, and a signal post, suffering heavy damage in the time of the commune; so that it was not until 1874 that its doors were opened to the public. For materials all Europe was laid under contribution. Italy sending her white and yellow marbles, Finland her porphyry, and Scotland and Sweden the most beautiful of their colored granites, France contributing also the choicest of her building-stones. The design, selected from 1 70 competitive drawings, is by Charles Gamier, afterward one of the most famous of Parisian architects.

At the entranceways are marble groups symbolic of tragedy, poetry, music, and the dance. Behind the circular dome which surmounts the auditorium is a lofty pediment rising from the stage, adorned with colossal gilded groups, and on its summit the Apollo of Millet, with lyre raised aloft toward the sky, forming the culminating point of the composition. From a spacious vestibule the visitor ascends the grand staircase and thence passes into a magnificent foyer, both of them remarkable for wealth of coloring and beauty of design and decorations. Of finished workmanship are the allegorical figures of comedy and tragedy, the panel paintings above the doors, where in the hands of children are the musical instruments of various nations, while on the ceilings are several of the masterpieces of Paul Baudry, the effect of which is somewhat marred by excess of light. Though seemingly dwarfed by their spacious approaches, the auditorium and stage are the largest in Europe, the latter 180 feet in length and 75 in depth, metal being almost entirely used in its complex machinery and equipments. On the upper floors are the library and archives, with a store of precious manuscripts accumulated during the two centuries or more for which Paris has been the home of opera.

The Theatre Francais, or Comedie Francaise as it is otherwise termed, is not an imposing edifice, though in its truest sense it is the temple of dramatic art. In its Doric vestibule is a statue of Talma, near which are figures of comedy and tragedy with the features of Mars and Rachel, and a relief representing a group of comedians crowning the form of Moliere, for many years its superintendent. The theater has a subvention of 240,000 francs, and to the Opera Comique and Odeon, the latter devoted to classical drama, are granted smaller amounts.

In the center of the Place Vendome is the column of that name, first erected by Napoleon I to commemorate the victory of Austerlitz, 1,200 Austrian and Russian cannon being melted down to furnish the original materials, now replaced by masonry covered with plates of bronze. Its design is in imitation of Trajan's column at Rome, and on the summit is a statue of the emperor, a spiral hand representing scenes in the great campaign with which culminated the glory of the first empire. Nearby is the Place des Victoires, so named from the pyramid erected in 1792 to commemorate the victories of the republic.

It was replaced by a statue of Desaix, one of the heroes of Marengo, and this again by an equestrian statue of Louis XIV in the garb of a Roman general. The Bois de Boulogne, intersected with walks and drives, is a favorite resort of Parisians, the havoc wrought by Prussian vandalism during the siege of Paris being almost entirely repaired. Extending almost to the bank of the Seine is the hippodrome of Longchamps, the principal racecourse of Paris. The Jardin d' Acclimation, covering some 50 acres, was established for the purpose of introducing plants and animals suitable for domestication, and contains many strange specimens of beasts, birds and fish. Here children may ride on the backs of camels or elephants, or drive in carriages to which zebras or ostriches are yoked. The Rue de Rivoli, for the completion of which 300 buildings were demolished during the second empire, is one of the finest thoroughfares in Paris; and among other spacious avenues constructed by Napoleon III is the

Boulevard de Sebastopol. In a small garden at their point of intersection is the tower of St. Jacques, a handsome Gothic structure 175 feet in height, restored as a relic of a sixteenth century church at a cost of 1,000,000 francs.

Of all the havoc wrought by the commune none is more to be regretted than the destruction of the Hotel de Ville, one of the finest buildings in Paris and rich in historic memories. While the loss in money was enormous, the loss in works of art and in public documents was irreparable. Founded in 1533, it was not completed until nearly a century afterward, and there were many later additions and improvements, Napoleon III relieving it of its squalid environment and building as an adjunct the caserne which bears his name. The reception and ball rooms with their magnificent decorations were the pride of the pleasure-loving metropolis; yet the structure reared on its site in the historic Place de l' Hotel de Ville is on a still more magnificent scale.

Of more than a score of cemeteries, that of Pere La Chaise, so named after the Jesuit confessor, is the largest and most interesting. Since it was first opened in 1804 more than 200,000,000 francs have been expended on its 20,000 monuments, among them those of Abelard and Heloise, of the duke of Placenza, minister of Napoleon I, of General Domon, Victor Perrin, Rossini, Beranger, Alfred de Musset, Casimir Perier, premier under Louis Philippe, and many others of historic fame.

A more ancient burial-ground is the cemetery of Montmartre, where in the middle of the twelfth century Louis VI founded a Benedictine abbey of which portions are still in existence.

For a distance of seven miles the Seine flows between almost continuous lines of buildings, and is widest at the island now called La Cite, the oldest portion of the capital. At this point is the Pont Neuf, with its equestrian statue of Henry IV, the people's king. Except the Pont des Arts, and one or two others intended only for foot-passengers, all the bridges are filled almost from dawn till dusk with an endless procession of vehicles. Many bear the names of famous victories, as the Pont d' Alma, built at a cost of 1,200,000 francs, and the bridges of Austerlitz, Jena, Arcola, and Solferino; others being named after monarchs or incidents, as those of Marie and Louis Philippe, la Concorde, and le Carrousel. Paris derives its water-supply from several sources and through more than 100,000 miles of pipes. On an average 2,500,000 cubic feet of water are taken from the Seine by powerful steam-pumps, the Marne and the Ourcq canal, with artesian wells and springs increasing the total supply to 25,000,000 gallons. Of gas mains, there are about 1,500 miles, the consumption in winter exceeding 1,200,000,000 feet a month. The drainage system is the best in Europe, and to this is largely due a decrease in the rate of deaths through natural causes from 36 to 23 per thousand since the time of the first revolution.

The chateau of St. Germain with its adjacent Chateau Neuf, of which only the pavilion of Henry IV remains, was a favorite summer resort of royalty, the present structure dating from the time of Francis I. In its Gallo-Roman museum are antiquities extending from the Paleolithic period almost to the middle ages. In one of the balconies are a Gallic chieftain and a Roman knight in bronze; in glass cases are the weapons vessels and idols of barbarous nations, and in the donjon, jewels statuettes and standards, with a chased silver vase unearthed near the town of Alise, the Alesia of Julius Caesar, whose conquests and conquered races are illustrated in graphic art.

Its beautiful terrace and forest are the principal attraction of St. Germain, near which is the town of Marly, once famed for its ponderous waterworks, including 220 pumps and 14 huge wheels, each 40 feet in diameter, erected at a cost of 4,000,000 francs when hydraulic science was little understood.

The chateau of St. Cloud was rebuilt by Louis XIV on the site of a palace erected by a wealthy citizen toward the close of the sixteenth century. In one of its chambers the council of Five Hundred held its sessions until dispersed by the grenadiers of Bonaparte, who a few days later was proclaimed first consul. Here was the favorite summer residence of both the Napoleons, and here the headquarters of Blucher when, on the 3rd of July 1815, was signed the second capitulation of Paris. During the Franco-Prussian war the chateau, the adjacent barracks, and most of the houses in its neighborhood were destroyed from strategic considerations, none of the environs of Paris suffering so severely during its siege. The park and gardens of St. Cloud are handsomely adorned with fountains and statuary; not far distant is the town of Sevres, famous for its porcelain factories.

From a mediaeval fortress, erected probably by Louis VII, the chateau of Fontainebleau was converted by Francis I into a magnificent palace, later enlarged by Henry IV, and with interior decorations by French and Italian artists of the time of Francis and Henry II.

It was one of the favorite residences of Napoleon I, who there took leave of his old guard after his abdication in 1814, and returning from Elba reviewed them before marching on Paris. Still in the suite which bears his name is the costly furniture brought for his use from the Petit Trianon, decorated by Marie Antoinette, whose boudoir and bedroom with those of Catherine de Medici and Anne of Austria are among the apartments of the palace. Remarkably handsome is the ceiling of the throne-room, with its chandelier of rock crystal, and that of the Chapelle de la Trinite, where Louis XV was married and Napoleon III was baptized. In the richly decorated galleries of Diana, Henry II, and Francis I are frescos and paintings of mythical and allegorical subjects, separated by bas reliefs and medallions, the first having also a library and collection of curiosities. Finally, in the salons de Reception are the finest of Gobelins and Flemish tapestries, with historic pictures and statues, and richly decorated chimney-pieces, especially that of Francis I. The gardens and courts are profusely decorated with statuary, and beyond is the magnificent forest of Fontainebleau, more than 42,000 acres in extent, and with numerous pathways leading through picturesque gorges and beautiful woodland effects. The town of Beauvais has, among many historic edifices, a Gothic cathedral begun in 1225 and still incomplete, its stained-glass windows being among the choicest specimens of ecclesiastical art.

The forest of Compiegne, covering 36,000 acres is intersected with hundreds of roads, a railway passing through it in the direction of Pierrefonds, where is a feudal castle erected in the fourteenth century by Louis of Orleans. The palace of Compiegne, with its double colonnade, belongs to the reign of Louis XV, and contains a museum of Cambodian antiquities in which are figures of Buddha, an elephant decorated with bells and jewelry, and statues of lions, giants, dancing women, and divinities of the dance. In the apartments of the chateau are many things that remind us of the first empire, their costly furniture, tapestries, vases, paintings, and statuary recalling the lime when France levied tribute on the art productions of Europe. The hotel de ville, of sixteenth century architecture, has a museum of paintings and sculptures, and the town itself is of historic interest, for here was the favorite residence of many sovereigns.

Parisian hotels are among the best in the world, the largest occupying entire blocks and containing from 600 to 1,000 rooms.

Except in the Faubourg St. Germain, the ground floors of nearly all the buildings in the heart of Paris are occupied as shops, many of them stocked with tempting wares graded as to cost according to nationality of visitors, and always high-priced to those who speak not the language of the salesman. Paris is the manufacturing center of France, and especially for jewelry, gold and silverware, and the finer descriptions of textile fabrics. At the famous Gobelins factory, destroyed by the commune with many of the choicest tapestries reserved for monarchs and persons of rank and wealth, work is still conducted on a minor scale. Several years are required for the execution of the larger designs, representing works of art, especially in flowers and fruits. When completed they sell readily for 50,000 francs or more, their brightness of coloring and delicacy of shading contrasting sharply with the faded and inferior textures which pass under the name of Gobelins.

Some twenty-five leagues south of Paris is the city of Orleans, formerly the capital of a separate kingdom, and rich in historic memories from the time when Clovis held at the beginning of the sixth century the first general council assembled in France. In the Place du Martroi, where is the heart of the city, stands the famous equestrian statue of Joan of Arc, its granite pedestal reproducing in bas-reliefs the leading incidents of her life. From this place an avenue named after the maid of Orleans leads to the cathedral of Ste Croix founded in 1287, and still unfinished when nearly 300 years later it was destroyed by the Huguenots. Of the present structure, not even yet completed, the first stone was laid in 1601, the main facade, erected in the eighteenth century, showing all the defects of that era of architectural degradation. The spire, 330 feet high, is of modern date, and the apse and choir chapels are fine specimens of renaissance workmanship. There are several churches, one of them said to have been founded by a son of Constantine the Great, and among the more prominent buildings is the hotel de ville, the residence of kings and queens from the reign of Francis II to that of Henry IV.

In the public library are manuscripts dating from the seventh century, and in the historical museum is a valuable collection of ancient vases and works, with banners, tapestries, of art relating to the heroine who delivered the city from its beleaguering host.

Proceeding south-westward along the right bank of the Loire we come to the town of Blois, the birthplace of Louis XII and the seat of a bishopric since the days of Louis XIV. First mentioned by Gregory of Tours in the sixth century, it later played a prominent part in the annals of France, and it was here that the duke of Guise was assassinated by order of Henry III. The chateau where Louis was born, a massive specimen of mediæval architecture, is the most remarkable among the many structures of antiquarian interest, interspersed with others of modern date, forming together an amphitheatre built on a steep hillside and threaded with stairways rather than streets. A few miles east of Blois is the chateau de Chambord, a splendid Gothic edifice, founded by Francis I, completed by Louis XIV, and occupied in succession by Dian of Poitiers, Stanislaus king of Poland and marshals Saxe and Berthier. Above its black stone walls arise stately towers and minarets, and around it is a park surrounded with walls more than twenty miles in circuit.

Chartres is noted for its cathedral of Notre Dame, founded in the eleventh century on the site of a still earlier sanctuary, and after being destroyed by conflagration, rebuilt on its present scale, though with minor additions and alterations. There are two lofty spires differing in design, and the stained-glass windows are among the finest specimens of mediaeval art. Tours, on the left bank of the Loire, situated amid the garden of France and surrounded with historic chateaus, is a favorite residence of the wealthy, on account of its beauty, the mildness of its climate and its institutions of learning,

science, and art. Tours, a city of monuments both ancient and modern, was known to the Romans as Caesarodunum, though occupying a site on the opposite bank of the river. Captured by the Visigoths, it became a part of the Prankish kingdom under Clovis, who presented to its church of St. Martin, the apostle of the Gauls, a portion of the rich spoils which fell to him on the defeat of Alaric. Though more than once pillaged by the Normans, the town was commended by a thirteenth century analyst for the prosperity of its inhabitants and the beauty and chastity of its women. Of many sanctuaries the finest is the cathedral, built on the ruins of churches reared successively by Gregory of Tours and Archbishop Hildevert.

While erected at intervals extending over nearly 400 years, it is remarkable for unity and regularity of design, its beautiful stained-glass and woodwork contributing greatly to the effect. A striking monument is the tower of Charlemagne, and worthy of note is the Port de l' Archveche in the archiepiscopal palace. A few leagues from Tours is the town of Amboise with its ancient castle where was the residence of the earlier kings. The cathedral of Bourges is one of the finest in France, its earlier portions belonging to the thirteenth century. Among many specimens of mediaeval architecture is the chateau of Charles VII the town itself being surrounded by ancient ramparts laid out as promenades.

In population and in commercial and industrial importance Lyons is the second city in France; a city noted also for its churches and institutions of learning and charity. Most famous of all is the cathedral of Notre Dame de Fourvieres, so called from the forum vetus or ancient forum which occupied its site. Founded in the ninth century as a chapel dedicated to the virgin, it was several times enlarged and restored, the present edifice belonging to various dates and including a modern church erected in 1872. The tower, more than 70 feet in height is crowned with a colossal statue of the virgin in gilded bronze, inscriptions on the pedestal ascribing to her deliverance from epidemics of plague and cholera. The hotel de ville is one of the finest of the secular buildings, which include many costly and pretentious structures. The principal museum is rich in Gallo-Roman antiquities, among them a speech of the emperor Claudian preserved on tablets of bronze, while in the numismatic collection are 30,000 coins, forming a complete series for a thousand years ending with 1857. There are also museums of natural history, of art and industry, and in the two largest libraries are 250,000 volumes with many hundreds of manuscripts. Next to Paris, Lyons is the greatest manufacturing city, its silk goods alone being valued at 450,000,000,000 francs a year and affording employment to 160,000 operatives. Villefranche, a few leagues to the north, is also a manufacturing town, its cathedral of Notre Dame des Marais belonging to the medieval and renaissance periods. At Clermont, the curiously decorated church of Notre Dame du Port belongs in part to the ninth century, and a thirteenth century cathedral ranks as one of the finest specimens of Gothic architecture.

Marseilles, the Massalia of the Greeks, by whom it was founded about 600 BC, has been from time immemorial the principal seaport on the Mediterranean, with a present shipping trade amounting to 4,000,000 tons, and with many miles of docks and quays on which is warehouse room for 250,000 tons of merchandise. The old harbor, opening on the gulf of Lyons, is protected by the forts of St. Jean and St. Nicholas, and beyond the outer harbor is the chateau d' If of Monte Christo fame. The Canal de Marseille, nearly 100 miles in length, crosses the adjacent valley by way of the great aqueduct of Roquefavour, one of the most remarkable works of ancient or modern times . Though nearly twenty-five centuries old, Marseilles has no antiquities, its growth as a commercial and manufacturing city forbidding the preservation of ancient monuments. A modern cathedral in the form of a Latin cross

occupies, as is said the site of an altar of Baal, which gave place to a temple of Diana, and this again to a cathedral superseded by the present edifice.

Of richest materials is the chapel of Notre Dame de la Garde, with its gilded statue of the virgin thirty feet in height, while almost in the center of the old town the church of Notre Dame du Mont Carmel stands on the spot where the citadel of the Massaliots was besieged by Julius Caesar. The hotel de la prefecture is a palatial structure, 300 feet in length and richly ornamented with statuary, paintings, and bas-reliefs; the chamber of commerce is noted for its handsome gildings and mural decorations, and the Palais des arts de Longchamps, for its museum of natural history and its choice collection of mediaeval and recent masterpieces.

Toulon, whose naval arsenal, now one of the largest in the world, was founded by Henry IV and enlarged and fortified by Richelieu and Vauban, is famous for the siege where Bonaparte first appeared upon the scene and later organized his Egyptian campaign. Except in the new quarter, erected during the second empire, its streets are narrow, tortuous, and squalid, while aside from its cathedral of St. Marie Majeure, there are no buildings worthy of note, Cannes, since its beautiful site and health-giving climate first attracted the attention of Lord Brougham, has become a favorite winter residence, especially for English visitors. Its suburbs are studded with handsome villas; its beach is flanked by a spacious promenade, and in the neighborhood are many orchards and olive groves. It was here that Napoleon landed after his banishment to Elba, in keeping with his promise "to return with the violets.” In the adjacent island of St. Marguerite is the citadel where the Man with the Iron Mask was imprisoned and whence Marshal Bazaine escaped in 1874. Nice, founded more than 2,000 years ago by the Massalian Greeks, was many times pillaged before finally becoming a portion of the French possessions. Back of the town, a steep hill which forms its historic nucleus, and where stood one of the strongest fortresses of the middle ages, is laid out in pleasure-grounds where still stands a fifth century tower. Nice has been for many centuries a pleasure and health resort, its theaters, library, museum, crystal palace, and municipal and other casinos affording pastime to visitors who pass there a winter in which frosts are rare and snow almost unknown. Grasse, with its narrow winding streets picturesquely situated on a terraced hill-slope overlooking the Mediterranean, is also noted for the healing qualities of its climate. Still in existence are its ancient Gothic cathedral and an eleventh century chapel now used as a powder magazine. The town is well supplied with markets; in the manufacture of perfumery it ranks next to Paris, and in its neighborhood are many citrus groves, with valuable quarries of marble jasper and alabaster.

Grenoble is noted for its cathedral of Notre Dame, founded by Charlemagne, and for its church of St. Laurence, built as tradition relates on the site of a temple of Aesculapius. There are many educational and scientific institutions, the library containing about 200,000 volumes collected by the municipality at a cost of more than 2,000,000 francs.

In 1219 the town was almost destroyed by flood, and since that date there have been many similar disasters. From its botanical gardens can be distinctly seen the Savoy Alps and the summit of Mont Blanc, beyond which is the village of Chamouni, little more than a cluster of hotels for the accommodation of Alpine tourists.

Aries, the Arelate of Caesars’ time, became under the later Roman empire one of the most prosperous towns in transalpine Gaul, especially in the days of Constantine, by whom it was enlarged and embellished, for this was his favorite residence. Among its most imposing ruins are those of a large

amphitheater, afterward converted into a Saracen fortress, with massive towers, two of which still remain. The modern town is well constructed, with spacious streets and quays, its public edifices including a cathedral founded in the seventh century and a town-hall built in the reign of Louis XIV. Nismes is also famous for its amphitheater and hanging gardens, the latter a beautiful specimen of landscape art. From the summit of a precipitous hill in the walled town of Avignon rises the twelfth century cathedral of Notre Dame des Doms, whence the magnificent palace of the popes extends in somber grandeur along its southern face. Here was held the papal court from the days of Clement V until, in 1377, Gregory XI again made Rome the headquarters of the papacy. Of the ancient fortifications of Montpellier there are few remains except the gate of Peyrou in the form of a triumphal arch at the entrance to one of the finest squares in France. The cathedral has recently been restored in the style of thirteenth century architecture; the museum has valuable art and antiquarian collections, and the botanical gardens are among the oldest in Europe.

Toulouse contains in its church of St. Sernin the largest and one of the oldest ecclesiastical structures in southern France, 375 feet in length and 220 in breadth. The crypts, where still are many relics, were plundered by revolutionary vandals of their gold and silver shrines; in the southern transept are the tombs of the earlier counts of Toulouse, and over the southern gate the ascension is finely represented in Byzantine sculpture. A less ancient edifice is the cathedral of St. Stephen, its seventeen choir chapels richly, adorned with stained glass, while over the battered western gate, once profusely decorated with statuary, is a beautiful rose-window of thirteenth century workmanship. Among the secular buildings are many costly mansions of the renaissance period; the university ranks second only to that of Paris, and no city is better supplied with institutions of learning science, and art. A drawback to Toulouse as a commercial emporium is its liability to floods, the great inundation of 1875 covering an entire faubourg and destroying 7,000 houses. Here was fought in 1814 the last battle of the Peninsular war, the siege of Bayonne, where is one of the strongest of Vauban's fortresses being interrupted by the news of Napoleon's abdication.

Next to London and Paris ranked in her palmy days the noble city of Bordeaux, whose crescent was studded with minarets and towers while in her harbor was a crowded forest of masts and swarms of smaller craft. Her merchants were princes; her warehouses were filled with costly goods from every clime; her smelters and welders were famous for their work in steel, finely tempered for sword and lance; and when war was raging in southern France it was a gala time for Bordeaux. Royal were the feasts and entertainments given in the days when the city was the seat of the brilliant court of the Black Prince. On costly plate were served roasted peacocks with spread tails and feathers as in life; boars head with gilded tusks and mouth lined with silver foil; the twelve apostles fashioned in jelly; great castles of pastry and many other wonderful dishes suited to the vigorous appetites of mediaeval Gaul and Briton.

Of modern Bordeaux the commerce is very considerable, especially its wine trade, which forms one-third of the total exports and imports valued at $100,000,000 a year. Ship building is a prominent industry, and of manufactures there is a moderate amount. In the business buildings of the city, and in its consular residences are represented a hundred nationalities: the newer quarters are filled with stately mansions and public buildings flanking spacious and well-paved avenues, and the principal square is adorned with statues, among them those of Montesqieu and Montaigne. The cathedral of Saint Andre is an imposing Gothic edifice with spires 160 feet in height, the loftier spire of Saint Michael being destroyed by a hurricane in 1768, after withstanding the storms of more than six

centuries. That Bordeaux is a center of intellectual activity is shown by its many schools of science art and belles-lettres, the communal library, founded in 1566, containing 250,000 volumes, with museums of natural history and antiquities.

The cathedral of Nantes, though begun in the fifteenth century, is one of the many temples that remain unfinished. In the southern transept is the marble tomb of Francis II, the last of Brittanys dukes, and of his wife Marguerite de Foix, their recumbent effigies surrounded with upright figures of justice, temperance, prudence, and fortitude, and with statuettes of apostles and saints. Near the Place Royal, with its modern fountain and profusion of statuary, is the Gothic church of St. Nicholas, with double aisles, and a tower nearly 300 feet in height, its gilded choir-screen and high-altar of white marble being the most striking features of the interior.

Nantes is a commercial and manufacturing town, old-fashioned but pleasing in appearance, and with many buildings of historic interest. Among them is its castle, founded in the ninth century, used first as a ducal residence, then as a state prison, and now serving as artillery headquarters. In the town-hall is a richly enameled golden casket, which once contained, as is said, the heart of Anne of Brittany. There are several museums, in one of which is a valuable collection of paintings presented by the duke of Feltre.

Brest was a place of some importance at least as early as the days of Duke John IV, who declared. "He is not duke of Brittany who is not duke of Brest." Its harbor, constructed by Richelieu with wooden wharves, was improved by Colbert, who substituted wharves of masonry, Vauban and others surrounding it with forts and batteries, while Napoleon III expended 15,000,000 francs on the development of a new commercial port as yet but partially completed. The town is built on hillsides so steep that the third story of many houses are on a level with the ground floor of those above. Apart from its fortresses and naval establishment, it contains little of interest, except a thirteenth century castle with massive towers, and a chapel and shrine of the virgin, to whom shipwrecked sailors addressed their prayers. Cherbourg has a strongly fortified harbor cut out of the solid rock, and yet, with room for fifty large vessels of war, the largest ships in the French navy being repaired in its docks or constructed within its yards.

The docks of Havre are among the finest in the world, nearly 20,000 vessels entering and clearing yearly from this port, which is second only to Marseilles in commercial importance. Trade with the United States is large, especially for imports of cereals cotton and petroleum, and exports of jewelry and cloth. There is steam communication with a score of foreign ports, and the harbor is also fortified as a naval station. Its principal street is the Rue de Paris, and among its principal buildings are the hotel de ville, the Musee, and the churches of St. Francis and Notre Dame. Dieppe is a modern town, though with a thirteenth century church and a fifteenth century castle, the latter now used for barracks and both in part of modern construction. It is a busy place, and ever since the duchess of Berry built there her Maison Quenouille, has been a favorite summer cider pre resort.

Boulogne ranks fourth among the seaports of France, though its exports and imports, amounting to 750,000,000 francs a year, are carried almost entirely in English vessels. On the improvement and extension of its harbor, the entrance to which is formed by piers extending far into the sea, about 40,000,000 francs have been expended within the last score of years. On its western side is the large semicircular basin constructed by Napoleon for his flotilla of 2,400 craft wherein to transport his troops to the shores of England, a Doric column of the grand army, 170 feet in height, marking the

spot where 180,000 men were encamped. The high or old town is surrounded with thirteenth century ramparts flanked by massive towers, and contains among other buildings the cathedral, the palais de justice and the hotel de ville, the last occupying the site of an ancient castle where Godfrey de Bouillon was born. In the lower or new town are many handsome hotels and shops, patronized largely by English residents and visitors, who have anglicized this portion of the city. Churches are plentiful, and a theater and museum, in which is a library containing richly illuminated manuscripts, are among the attractions of this favorite watering place. Through the port of Calais, whence the cliffs of Dover are plainly visible, pass every twelvemonth more than 250,000 travelers, by whom the place is mainly supported; for there is little commerce, and manufactures are of no importance. Overlooking the town is the citadel built by Richelieu, and in its center a spacious marketplace where stands the hotel de ville with busts of the great cardinal, of Eustache de St. Pierre, and of the duke of Guise.

Nearby is the Hotel de Guise, erected by Edward III in the Tudor style as a guildhall for wool-staplers. The church of Notre Dame, originally a twelfth century structure, rebuilt during the English occupation and with many modern alterations, is remarkable chiefly for its altar, and its 'Descent from the Cross' by Rubens.

Among scores of stately and time-honored cathedrals the finest in France is that of Amiens, a Gothic thirteenth century edifice, though with many later additions which have somewhat marred the effect, especially the slender spire above the transept, 360 feet in height and out of proportion to the massive structure beneath it. Other remarkable buildings are the city hall where the peace of Amiens was signed in 1802, the Musee de Picardie, with its sculptures paintings and antiquities, and the Bibliotheque Communale with 80,000 volumes and several hundred manuscripts. Amiens is one of the foremost of manufacturing towns, especially for cashmeres velvets linens woolens and kerseymeres. Rouen is also a great manufacturing center, its numerous cotton-mills causing it to be named the Manchester of France. It is, moreover, an important port; for the Seine, increased in depth by dredging and embankments, is navigable for vessels drawing thirty feet. Though still rich in mediaeval architecture, here as in Paris many of the most striking monuments have been swept away by modern improvements. The cathedral is yet another of the imposing Gothic structures erected in the thirteenth century, though the design is lacking in symmetry, the embellishments somewhat florid, and the sculptures of no special merit. Of its two towers, the Tour de Beurre is so named because it was built with the money paid for indulgences to eat butter during lent. In better taste is the Gothic church of St. Ouen, with its richly ornamented façade, and that of St. Maelon, with lofty modem spire, and on one of its tympanums a bas relief of the 'Last Judgment', described by Ruskin as fearfully grotesque. The Palais de Justice and the Hotel du Bourgtheroulde resemble each other in style and in lavish interior decorations. The Musee is a handsome edifice of modern date, with collections both of ancient and modern art. There is also an antiquarian museum, and the municipal library has coins and medals in addition to its 150,000 volumes and 3,000 manuscripts. Vitre is famous for its mediaeval remains, especially those of its castle, with ivy-clad walls and battlemented towers, portions of it recently restored being used as a museum and library. The town itself wears a feudal aspect, many of its buildings dating from the middle ages, while the cathedral, though with modern features, is mainly of fifteenth and sixteenth century architecture. A few miles distant is the Chateau des Rochers, also a mediaeval mansion and once the favorite residence of Madame de Sevigne.

Rheims, situated in the midst of a fertile plain bordered by vine-clad hills, was a place of historic interest in the days of Clevis, who here was consecrated, as is said, with oil from a golden phial brought from heaven by a dove. Through its fidelity to the Romans the town received many favors from the emperors, a triumphal arch named the Mars gate, from a temple of Mars that stood in its neighborhood, marking the spot which Agrippa selected as the terminus for his system of roads. As a center of the champagne trade it is of commercial importance, wine to the value of many millions of francs being stored in cellars hewn out of the solid rock. It is also a manufacturing city, especially for woolens and merinos, the spinning and weaving of which keeps busy a hundred mills. Chief among its buildings is the magnificent cathedral erected in the thirteenth century on the site of the basilica where Clevis was baptized, its facade with recessed portals and rose window covered with statuary forming one of the most beautiful compositions of the Middle Ages. Above them, and serving as a basement for the graceful towers which crown the edifice, is the gallery of the kings, where are colossal images of many sovereigns. The transepts are profusely decorated with sculptures; of tapestries rich and rare there are many specimens, and in the treasury are precious relics and plate, with the ornaments and vessels used at coronations. Close at hand is the archiepiscopal palace, where monarchs were banqueted before being crowned. The abbey of St. Remi, founded in 852 and rebuilt in the eleventh century, still presents the outline of its noble basilica, though somewhat impaired by modern restorations . The stained-glass choir windows are beautiful specimens of mediaeval art; the arcades of the chapels adjoining the apse are supported by graceful pillars, and near the high-altar is the mausoleum of St. Remi in the form of a temple of colored marbles. The town hall, capped with an elegant campanile, and on its pediment an equestrian statue of its founder Louis XIII, has a well-selected library, a picture gallery, and a museum of natural history.

Nancy, the former capital of Lorraine, is in its modern portion one of the best built towns in France, and one of the most beautiful in site, its spacious plazas, avenues, and promenades flanked by fine buildings, beyond which the suburbs extend toward clustering vineyards and wooded hills.

Of several triumphal arches, all of antiquarian interest, the finest is the Porte Royal, erected in honor of Louis XV in the form of a Corinthian gateway, with statues and bas-reliefs of Roman divinities. Of an ancient ducal palace founded by Raoul in the fifteenth century only a single wing remains, the entrance to which, containing an equestrian statue of Antoine de Lorraine, is one of the finest specimens of the later Gothic style. In one of the galleries is an archaeological museum containing manuscripts, miniatures, medals, cameos, gems, and a tapestry more than ninety feet in length from the tent of Charles the Bold who met his fate at the battle of Nancy. Adjoining the palace is a Franciscan church where are many monuments, its Chapelle Ronde containing the black marble sarcophagi of the ducal mortuary. The cathedral is a gloomy and cumbersome edifice, with nothing worthy of mention except its well-stocked treasury. The university, once of wide repute, has been converted into a public library; the town hall has a gallery of paintings; there is a school of forestry, and in the neighborhood is the first agricultural station founded in France. At Aix-les-Bains, a favorite watering place as far back as the days of republican Rome, are many ancient monuments, a triumphal arch of Marius commemorating his victory over the Teutons. It is still a fashionable resort, its hot sulfur springs containing remarkable healing properties.

Such are the principal cities and towns of the French republic, though of many others, had space permitted, mention might have been made. The island of Corsica may here be mentioned as one of the political departments of France. Ajaccio, its capital and commercial center, with a spacious and

sheltered harbor, has its citadel, cathedral and town hall, its library and botanic gardens, and little the worse for wear are the house in which Napoleon was born and the marble statue erected in his memory. Agriculture, together with all other industries, is in a backward condition, due mainly to the minute subdivision of land, whereby are perpetuated the hereditary feuds with which the country has been for centuries distracted. Even the forests that cover the hills are neglected as a source of wealth, though for ages furnishing timber for the navies of antiquity.

Passing to the adjacent republic of Switzerland we find a confederation of states originally united for common defense against a common foe, and still, though intense in their patriotism, differing in language religion and social and industrial conditions. Its political annals need not detain us; for they are intricate and local. Nor could it well be otherwise with a nation divided by natural barriers into isolated and self-reliant communities, far more so even than was ancient Greece, its political boundaries having little to do with those which nature has provided. Though a land of mountains and lakes, with less than thirty percent of productive area, Switzerland supports a population almost as dense as that of France, many of the cantons having from 300 to 500 persons to the square mile. While the former figure is surpassed in few of the French departments, yet the single department of the Seine contains more people than all the sister republic. The Swiss incline to agriculture, 300,000 peasant proprietors representing probably, with their families and employees, two-thirds of the total inhabitants. There are also large manufacturing industries, nearly 5,000 establishments being subject to factory law, the production of textile fabrics alone affording employment to 100,000 operatives.

Geneva, though the capital of the smallest canton, is the largest and richest city in Switzerland; its wealth due largely to manufactures, which as early as the sixteenth century included velvets and ribbons, gold and silver plate, watches and jewelry, many other industries being added since that time.

The town is well situated on the marge of the lake which bears its name, and whence flows westward under several bridges the broad, deep current of the Rhone. Of several quays the finest is that of Montblanc, from the side of which rises the massive Brunswick monument with its colossal lions, marble statues of the Guelphs, and equestrian statue of the duke who left to Geneva his fortune of 20,000,000 francs. There are many handsome, but few very large or pretentious buildings, and none that can be classed as great architectural monuments. The cathedral, founded as is said in the tenth century on the site of a temple of Apollo, is a second-class structure, though with a style and plan of its own, except a Corinthian portico, resembling that of the Roman pantheon, introduced into its main facade. The hotel de ville is remarkable only for its unsightliness; but is of interest for it historic associations and its valuable collection of archives. The university buildings, connected by glass galleries, are of modern date, and contain a library of 150,000 volumes and 12,000 manuscripts, a cabinet of coins and an archaeological museum. The Athenee, founded, by a wealthy Genevese, has a gallery of art and a library relating to the history of art. The Musee Rath was erected by the sisters of a Russian general, who expended most of their fortune in thus perpetuating the family name in the city of their nativity. It is a tasteful edifice of Greek design and with Corinthian portico, its chambers well stored with the canvases of modern and ancient masters.

The Fol museum is noted for its Greek and Etruscan vases, and in the Musee Ariana, built and equipped by Gustave Revilliod, are illustrated the many branches of fine and decorative art to which the tastes of the founder inclined. Here are the richest of tapestries, porcelains, bronzes, ivory

carvings, stained glass, antique furniture, medals, coins, and enamels, with paintings drawings and statuary by the foremost of Swiss artists. As one of the principal resorts for wealthy foreigners, Geneva is well provided with hotels and villas, some of which, as the chateau of the baroness Adolphe Rothschild, are of palatial dimensions. Yet this does not compensate for the lack of monuments characteristic of the age during which the city has sat enthroned by the lake; for Calvinism has ever been too firmly devoted to the beauty of holiness to permit many other forms of beauty in the birthplace of its creed.

Lausanne is picturesquely situated on the terraced slopes of Mount Jorat and its neighboring hills, one of which, near the close of the sixth century, Marius of Aventicum selected as the seat of his bishopric. On the highest of these hills is the cathedral, a plain Gothic structure in the form of a Latin cross dedicated, by Gregory X in the presence of Rudolph of Hapsburg. Overshadowing the town and on its loftiest a mediaeval castle, and among other buildings worthy of mention are the Academy the Musee Arlaud, and the Cantonal museum with, its library of 150,000 volumes and its collections of coins, medals, and Celtic antiquities. Since the time when Gibbon, whose praises called attention to the beauties of its site, completed here his Decline and Fall of the Roman Empire, Lausanne has become an educational center and a favorite resort for visitors, "In London", says the historian, “I was lost in the crowd; in Lausanne I ranked with the first families.

Instead of a small house between a street and a stable-yard, I occupied a spacious and convenient mansion, open on the south to a beautiful and boundless horizon. From the garden a rich scenery of meadows and vineyards descends to the lake, and the prospect far beyond is crowned by the stupendous mountains of Savoy." A few miles away is the town of Vevey, the scene of Rousseau's romance La Nouvelle Heloise. In the neighborhood, clustering around Montreux, are many villages and chateaus, among them the famous castle of Chillon, famed in Byron’s romantic verse; though had the poet been better acquainted with his theme, he would have depicted less strongly the sufferings of Bonivard and the cruelty of his captor. As a fact Bonivard, a wealthy Genevese, inheriting from his uncle the rich priory of St. Victor, was more to be envied than pitied, and only for intermeddling with disputes which concerned him not was imprisoned for a few years by the duke of Savoy. Released by the Swiss forces in 1536, he ended his days in peace and comfort, at a ripe old age, and as one of the most respected citizens of the republic.

Berne is the capital of a canton which contains some of the grandest scenery in Switzerland,—the Jungfrau, the Eiger, the Wetterhorn, and other monarchs of the Oberland. Founded in the twelfth century and destroyed by fire in the fifteenth, it became the seat of the national government in 1848, before and since which date it has played a prominent part in political annals. Built on a peninsula formed by a curve in the Aar, the town is essentially Swiss, and with strong mediaeval features, especially in its rathhouse where are the chambers of the government council, and its richly decorated Gothic cathedral, though in both are modern renovations. Some of the streets are broad and regular, as the Kramgasse, Marktgasse, and other arteries of traffic, where also are ancient and there is also an historical museum with, statues and fountains. The Municipal library is chiefly historical ethnographic and archeological collections, while educational and charitable institutions are very numerous.

Thun, near the efflux of the Aar into the Thunner See, is the portal of the Bernese Oberland, commanding one of the finest panoramic views in this land of scenic wonders. It is a quaint old-

fashioned town with nothing remarkable except its mediaeval castle surmounted by a tower in which is an historical museum. Interlaken, on the left bank of the Aar between lakes Thun and Brienz, is also noted for the beauty of its site and the mildness and purity of its atmosphere. Though the normal population is less than 5,000, it has long been growing in favor as a summer resort, visitors to the number of 250,000 a year making it their headquarters for excursions to the Oberland. The avenue known as the Hoheweg, shaded with rows, of walnut trees and flanked with spacious hotels and shops, is the principal business and residence quarter.

Elsewhere the buildings were formerly occupied mainly by religious houses, chief among them being an Augustinian convent, now used as a hospital and for government offices.

Neuchatel, on the lake of that name which probably covered in bygone ages the lower valley of the Aar, is built on the base and foothills of the Jura, the castle after which it is called, now the headquarters of the cantonal government, dating from the Burgundian period and afterward used as the residence of the princes of Neuchatel. Near it is an abbey-church of twelfth century architecture, with pointed Gothic towers belonging to a later era. In the Musee des Beaux Arts are galleries of paintings, drawings, and antiquities, owned by the municipality, and in the college Latin are a public library and a valuable collection in natural history contributed by Agassiz. Many of the charitable institutions were endowed by private citizens, among them the hospital established by David de Fury, who bequeathed to his native town 4,500,000 francs.

The site of Lucerne, with its many hotels, on both banks of the Reuss, where it issues with the swiftness of a torrent from a western arm of the lake, is singularly picturesque amid its setting of richly cultivated hills, beyond which are the green slopes of the Rigi and the snow-clad summits of Uri and Engelberg. The effect is further accentuated by its ancient walls and watch-towers one of which, rising from the edge of the, lake, served as a lucerna or lighthouse, whence the name of town and canton. Among the quaint buildings in the narrow, crooked streets of the older quarter is the rathhaus, containing an historic museum in which are many curiosities. In the libraries of Lucerne, and especially the town library, is an almost complete collection of documents relating to the medieval annals of Switzerland. In ecclesiastical architecture there is nothing remarkable, except perhaps for the hofkirche with its slender towers and carved pulpit, stalls, and altars. An object of universal interest is Thorwaldsen's colossal lion, transfixed with a broken weapon, and in its paw the lily of the Bourbons, a memorial of the Swiss guards who fell in defense of the Tuileries. From the lake of Lucerne the Rigi railway rises to a height of 5,700 feet, with a gradient of 250 feet per 1,000, forming one of the most remarkable achievements in railroad engineering.

Zurich, the former capital of the confederation, is a large manufacturing city, its exports of silk alone amounting to 100,000,000 francs a year. It is also a financial and educational center, including among many public and private institutions a university and a polytechnic school with numerous branches. The two portions known as the Large and Little town, on either side of the Limmat, are by several bridges one of which, called the Munster brucke leads to the ancient Swiss, cathedral of Gross Munster, a monument of rare historic interest.

Erected between the eleventh and thirteenth centuries, its principal chapel was the burial place of the patron saints of Zurich, a chamber above being used as the public treasury. Its towers are partly of Gothic design, and on one of them is the enthroned figure of Charlemagne, a liberal patron of the cathedral and probably the founder of its chapter. The oldest of the parish churches are St. Peter's and

the Frau Munster, the latter formerly a convent erected in the ninth century by Louis the German. In the choir of the Dominican church is the cantonal library of 100,000 volumes, and in the Wasserkirche, on the site of a pagan temple where the patron saints suffered martyrdom, is one of the largest libraries in Switzerland, containing also a valuable collection of antiquities from the lake dwellings of the country.

Bale, or Basel, where was held the last of the three great councils of church reform, is first mentioned as a Roman military post erected in the fifth century, where after it gradually increased in importance until in the fourteenth century it was almost destroyed by earthquake. Later it continued to flourish, notwithstanding the ravages of the Thirty Years' war, followed by internal dissensions and, is now a large manufacturing and commercial center, especially for the transit trade of Germany and France. Still in existence, though not in its original shape, is the Gothic cathedral founded in 1010, its northern portal adorned with statues of the evangelists, above whom Christ sits enthroned on the judgment seat. The principal museum, with its natural history, ethnographic, and fine-art collections, is also the home of the university library, containing 250,000 volumes and 6,000 manuscripts. There is also an historical museum, the best of its kind in Switzerland, stored with the weapons of many ages, with porcelains bronzes medals and coins, with antique cabinets panelings and furniture, with medieval costumes and embroideries, and with the handsome gold and silver plate of the guild companies of Bale. Constance is still architecturally almost a mediaeval town, its minster, its Dominican convent, now converted into a cotton factory, and the kaufhaus, or market-place, in whose hall was held the ecclesiastical council over which Sigismund presided, all belonging to this period. There are, however, many modern structures beyond the ancient walls which still surround the older quarter.

On an island connected with the shore by an iron bridge 1,700 feet in length are the chateau and pleasure-grounds of the grand duke of Baden.

Among minor Swiss towns is that of Sion, surrounded with castles built on isolated hills, one of them the site of an ancient Roman fort. Here also are a fifteenth century Gothic cathedral and the still more ancient church of Notre Dame de Valere. Nor should we forget the famous hospice of St. Bernard, where travelers are fed and lodged gratuitously if need be, and where many lives have been saved by the noble animals which track those who lie buried beneath the snow. It was formerly one of the wealthiest of convents, but with revenues now reduced to 30,000 or 40,000 francs a year, little of which is derived from the 20,000 wayfarers entertained every twelvemonth within its walls. The present edifice belongs to the sixteenth century, and in its library is a collection of ancient and modern coins.

Comfort and contentment are wealth. Of all the nations of the earth none are more comfortable than the French and none more contented than the Swiss, the ease with which the former has borne the burden of its war indemnity and the enormous losses incurred by the fiasco of the Panama Canal affording sufficient proof of her wonderfully elastic resources. Preserving the form and spirit of constitutional republicanism in the center of monarchies whose armaments are a menace to the world, these two nations justify the hope that other European countries will at no very distant day break loose from the empty forms, the gilded shackles, and the senseless traditions of imperialism. While many great movements have had their origin in France, none were of such significance as her

championship of the true principles of political life; and in the preservation of her present attitude the growing resistance to arbitrary power has its surest guarantee of stability.

Miscellany

France has all the conditions and requirements of wealth, diversified soil configuration and climate, agriculture, mines and manufactures. Her forests are valued at $600,000,000, yielding an annual revenue of $8,000,000. Half of the 36,000,000 population live in the country, grain-growing being their primary occupation, vegetables and all useful plants, with grass and vines, being also largely cultivated. Chief among manufactures is the working of textile materials, while among mines coal and iron are conspicuous.

As between the cost of royalty and republicanism in France during the present century, there were paid to Louis XVIII and family a little less than 20,000,000 francs a year; Charles X 32,000,000; Louis Philippe 12,000,000; second empire 25,000,000. The president's salary is 600,000 francs, and an allowance of 162,400 a year for household expenses. Total revenue of the republic 3,000,000,000 francs.

The wars of Napoleon the Great cost France $1,275,000,000; the wars of Napoleon the Little cost $2,210,000,000; the former made the enemy pay the expenses, the latter paid the expenses of the enemy.

The following is the true version of the famous necklace scandal. In 1795 the court jeweler Boechmer offered to Marie Antoinette a diamond necklace made for Madame du Barry, who was banished from court after the death of Louis XV. The queen coveted the bawble, but could not afford the cost, which was $320,000; whereupon the countess de la Motte determined to secure it for herself, forging the queen's name and persuading her almoner, Cardinal de Rohan, to purchase it for $280,000. For this she was sentenced to imprisonment for life, and the cardinal was also put on trial but acquitted, while the queen herself was suspected of being a party to the fraud. "I shall not be surprised," said Talleyrand, "if this miserable affair overturns the throne."

Paris grows rich on the follies of mankind. The most costly dress made by Worth was for the wife of an American millionaire, who paid for it $40,000, the embroidery on the train being valued at $4,000. It was mainly the foolish extravagance of American women that made Worth rich and famous; for no such prices were thought of until the daughters of our republic were seized with a mania for Worth dresses and titled husbands. The great man-milliner had his prototype in Leroy, who during the first empire attired the princesses of the imperial court, and still earlier in the days of Louis XV, when one Rohmberg, a Bavarian, was the fashionable dressmaker, accumulating a fortune of $250,000, an enormous sum for a bourgeois of the later monarchy.

Dussault, incarcerated by Richelieu, was confined in the Bastille for 61 years.

The government library at Paris has 2,200,000 volumes; British Museum, 1,500,000; Munich, 900,000; Berlin, 800,000; Copenhagen, 510,000; Dresden, 500,000; Gottengen, 500,000; Vienna, 400,000.

In Europe, the United States, and Canada are 70,000,000 houses; Paris has 90,000 houses; New York, 115,000; Philadelphia, 87,000; Tokio, 342,000; London, 600,000.

Twenty years ago the debt of Paris was $340,000,000, or $170 for each one of the 2,000,000 inhabitants; the debt of France at the same time was $2,400,000,000. The army of France at that time numbered 470,000 men, maintained at a cost of 900 francs a year each, or $84,600,000 in all, an amount ten times greater than the cost of public schools, which is $8,400,000 annually.

The assignats issued by the first French republic in 1790, amounting in value to $1,800,000, became so depreciated that a pair of boots cost $1,500, and a pound of butter $150.

Paris has a large mill for making tooth-picks.

The hospitals of Paris have a subsidy of nearly $2,000,000 per annum.

The receipts of the grand opera in Paris amounted in 1894 to $630,000, in addition to which there was a government subvention of $60,000; yet as in other years it did not pay expenses. For the same year the income of the Comedie Francaise was $400,000; of the Opera Comique $309,000, and of the Vaudeville $298,000.

Where the great department store, Au Bon Marche, now stands, in the rue du Bac, was once the shop of Mine Boucicaut, laundress, later dressmaker and dealer in clothes, who with her husband made $50,000,000, leaving $15,000,000 to charity.

A banquet given in Paris to 15,200 mayors of French communes cost $40,000.

The Paris broker, Verin, was in June 1891 declared a defaulter to the amount of $5,000,000.

In the Paris omnibus strike ending in May 1891, the company loss was $750,000, and that of the drivers $1,500,000.

Paris is not only an art center but one of the best markets in the world for works of art. At the sale of the Gamier collection, in 1895, Millet's 'Harrow' sold for $15,000 and his 'Sheep in a Fold' for $7,000; Daubigny's 'Washerwoman' brought $10,000, while for Manet s 'Nana', $1,800 was paid; many small landscape paintings realizing excellent prices.

It is estimated that in Paris 150,000 persons live on charity. Nevertheless France, like other countries has its rich beggars, one who died at Auxerre in 1894 leaving $200,000 in bonds, which were found in his trunk, and in his cellar some 35 dozen of wine of the vintage of 1790.

A will whereby a French marquis left to the pope an estate valued at $2,500,000 was set aside on the ground that the supreme pontiff was a sovereign, and therefore debarred by law from acquiring title to realty in France.

Napoleon I who expended more than $20,000,000 for the improvement and decoration of Paris, left the very moderate fortune of $1,200,000 to his generals and favorites not, forgetting his valet, who received as is said, $80,000. In the codicil to his will he bequeaths $2,000 to an officer named Cantillon, who had been tried for attempting the assassination of the duke of Wellington. "Cantillon," he says, "had as much right to assassinate that oligarchist as the latter had to send me to perish on the rock of St. Helena." By Napoleon the cathedral of Notre Dame, where in 1804 he was crowned emperor of France, was reopened as a place of worship. During the revolution it had been converted into a temple of Reason, with an enthroned figure before which a ballet dancer received in state the

worship of reason's votaries. A statue of Liberty supplanted that of the virgin; in place of sacred hymns were heard the songs of the national guards, and young women dressed in white, with torches in their hands, walked in procession around the cathedral while drunken orgies were held in its side-chapels.

France produces 26,000,000 pairs of gloves annually.

France makes every year 4,000 tons of glycerin.

Three millions of people patronize the pawn-shops of France.

Paris pays its police some $6,000,000 annually.

The poultry stock in France numbers 87,000,000.

In France, for the 20 years ending with 1894, the area in vines and the production and export of wine show a serious diminution. From 5,600,000 acres in 1875 the acreage under cultivation decreased to 4,400,000 acres in 1894; the production meanwhile being reduced from 1,826,000,000 to 960,000,000 gallons, and the export from 82,000,000 gallons to 37,000,000 gallons. The exports for 1894 were about the smallest recorded during this period; but for most of the intervening years the total vintage was far below the figures for that year. It will be seen that in proportion the decrease in acreage is much smaller than in yield, an acre of grapes producing 327 gallons of wine in 1875 and only 220 gallons in 1894. This is due to various pests, and especially to the phylloxera, which first made its appearance in the Medoc district in 1869, its ravages at one time threatening the entire destruction of the vineyards. Medoc is the heart of the wine-producing industry, of which France may be considered as the home, its sauternes selling at wholesale for as much as $300 a hogshead.

In 76 out of the 87 departments of France, wine-making is the chief or one of the chief industries, with an average output for the last ten years of 680,000,000 gallons, Italy coming next with 630,000,000 gallons, then Spain with 562,000,000, and Austro-Hungary with 144,000,000 gallons: Germany, Portugal, and all other countries falling below 100,000,000 gallons, and with a united product less than that of France, for which $250,000,000 a year is probably a fair valuation.

The famous Sevres vase presented to Tippoo Sahib by Louis XVI was sold in London in 1876 for $7,300. It is urn-shaped, extremely thin, only eight inches high, and realized more than 2,000 times its weight in gold.

France has in gold, silver, and paper money $2,500,000.000 or $42.15 per capita.

France has spent in public works $3,000,000,000, of which $400,000,000 was for canals.

France makes every year $25,000,000 worth of ribbons.

There are 652 asylums in Great Britain, having in all 104,000 beds, and costing annually $13,000,000. France has 1,105 asylums, 120,300 beds, which cost yearly $13,800,006.

More than 10,000,000,000 cigars are smoked every year in America, or about 60 for every inhabitant, In France 20,000,000 clay pipes are made annually.

The University of Paris has over 9,000 students and 180 professors.

Versailles, now a town of 30,000 inhabitants, was originally the hunting-lodge of Louis XIII It was chosen as the place for a palace by Louis XIV, who for eleven years had an army of workmen employed on the buildings and grounds at a cost of $200,000,000.

Ferdinand de Lesseps was responsible alike for the greatest engineering feat, the greatest engineering failure, and the greatest financial disaster of the age; for the success of the Suez Canal project and for the wreck and ruin at Panama, with its attendant loss of nearly $200,000,000. He was himself rather a promoter than an engineer, and more of a diplomatist than either, serving for many years as consul or minister in Spain and Italy before securing from Said Pasha the right to construct the Suez Canal. After the opening of the canal he was recognized as one of the most remarkable men of the age, and was rewarded with honors and decorations by nearly all the sovereigns of Europe, while the foremost of scientific associations admitted him to honorary membership. But the construction of the Panama Canal was too difficult a problem even for the genius of de Lesseps, who would never admit or give due weight to engineering difficulties. For years the savings of the peasantry and of small tradesmen and capitalists were poured into the company's treasury, to be sunk in the rocks and sands of the Isthmus, or squandered in extravagant expenses, $12,000,000, for instance, being paid for advertising and more than $4,000,000 for newspaper notices . Presently came the end, though even when bankruptcy was inevitable, de Lesseps would never admit his failure, continuing his appeals for money until the people bad no more to give. When the blow fell, it left him in a moribund condition, so that except for a vague sense of disaster he was unconscious of what was occurring, and knew nothing of his trial and conviction. At the age of 89 he passed away, simply through the exhaustion of his vital powers.

The order of Fleece of Gold was instituted by Philippe de Bourgogne, that is to say Philip the Good, in 1430.

The story of Fairstar has been pretty well told, coming as it does first from the Milanese tales of Straparola, 1550, and again told by the comtesse D'Aunoy in her Fairy Talce. To the queen Blondina were born in a bunch two boys and a girl, Fairstar the name of the latter, all with a star in the forehead and a chain of gold about the neck. Brunetta, sister of Blondina and wife of the king's brother, had the same day a son, named Chery. Blondina ordered the four children to be strangled by Feintisa, who sent them adrift in a boat, which was found by a corsair, who took the children to his wife Corsina. Whenever the hair of these children was combed, jewels fell from their heads, so that the corsair became exceedingly rich. In the end, a bird made known their birth, and Chery married Fairstar. In like manner the comtesse D'Aunoy makes over the old tale of Cinderella into Finetta, a cinder girl, though one of three princesses. Thus plays the fancy as the centuries pass, the world's wealth of fable out-weighing the world's wealth of fact. Did not De Quincey try in vain to borrow half a crown on the security of a sovereign? Napoleon did not like it that those about him should be taking bribes. Massena, Auguer, Augereau, Brune, Juno, and Talleyrand were all great bribe-takers, the last named confessing to having received 60,000,000 francs from German royalty. The great arch-thief had a way of manifesting his dislike of theft in others by making drafts on the bribe-takers, which were invariably honored, Massena once disgorging 2,000,000 francs on one of his master's orders to pay.

The money which Napoleon wrung from Europe he showered freely upon his generals who had helped him to win it. Berthier's annual income was at one time 1,355,000 francs; Ney, Davout, Soult, and Besieres received 600,000 francs each; Massena, Victor, Augereau Bernadotte, and Mortier,

400,000; others 200,000. While at St. Petersburgh Caulaincourt received 800,000 francs; Davout's yearly income at one time was 910,000 francs, and 728,000 francs.

As good diamonds as those from Africa, if people would choose to think so, and at much less cost, are cut in large quantities at Sdar, Switzerland, where real gems used to be manipulated, until they found the imitation, as they are called, to pay better. Brilliants and imitation gems are now used more than the genuine, and when real diamonds are manufactured by the bushel, the great trouble and expense of digging for these pretty bawbles in South Africa will be abolished.

Solomon Heine the banker, at his death, left to his niece the princess of Monaco, 30,000,000 francs.

So many Russians were ruined by the gaming tables at Monte Carlo, that the tsar at one time forbade his subjects visiting the place.

Chapter the Eleventh: Belgium and Holland

I cannot call riches belter than the baggage of virtue. For as the baggage is to an army, so is riches to virtue. It cannot be spared, nor left behind, but it hindereth the march; yea, and the care of it sometimes loseth or disturbeth the victory. Of great riches there is no real use, except it be in the distribution; the rest is but conceit. The personal fruition in any man cannot reach to feel great riches. There is a custody of them, or a power of dole and donative of them, or a fame of them, but no solid use to the owner. Do you not see what feigned prices are set upon little stones and rarities? and what works of ostentation are undertaken because there might seem to be some use of great riches? The gains of ordinary trades and vocations are honest, and furthered by two things: chiefly, by diligence; and by a good name for good and fair dealing. But the gains of bargains are of a more doubtful nature; when men shall wait upon others necessity, broke by servants and instruments to draw them on, put off others cunningly that would be better chapmen, and the like practices, which are crafty and naught. As for the chopping of bargains, when a man buys, not to hold but to sell over again, that commonly grindeth double, both upon the seller and upon the buyer. Sharings do greatly enrich, if the hands be well chosen that are trusted. The fortune in being the first in an invention or in a privilege, does cause sometimes a wonderful overgrowth of riches; as it was with the first sugar man in the Canaries. Therefore, if a man can play the true logician, to have as well judgment as invention, he may do great matters, especially if the times be fit.

All that is necessary for success in this world is a good constitution and a bad heart.
—Fontenelle

Wealth comes in the morning and goes in the evening.
—Arab Proverb

"Will you lend me your mare to go a mile?"
"No, she is lame leaping over a stile."
"But if you will her to me spare,
You shall have money for your mare."
"Oh, ho! say you so?
Money will make the mare to go."
—Old Glees and Catches

Few brighter examples have come down to us of personal courage and national self-help than those which are found in the history of the Netherlands, a low-lying country at the mouth of the river Rhine, on the border of the North sea. Here was the cradle of English integrity, the cradle of American liberty, where were born and nurtured those sterling virtues which brought to English-speaking peoples the high morality, the pure religion, and the liberal forms of government which give them today a dominating influence throughout the world. To the stalwart Dutchman Great Britain owes much; to the Dutch republic the republic of the United States of America owes much; for down the river Maas from Delfshaven had sometime come Plymouth-rock pilgrims in their good ship Speedwell to join the Mayflower at Southampton, leaving in the swamp-stricken land those rare qualities of mind and conscience which led to the forming of the first confederation of sovereign states which mankind had ever witnessed. For this at first was a most unpromising country in which to plant religions and reformations which were to overturn the existing order of things, and shake to their foundations institutions which for centuries had shaped the course of human destinies throughout the civilized world.

Little imagined the Romans what a hornets' nest their great Julius was stirring up when he came hither to fight the Nervii, Tacitus later describing the fierce determination with which the Roman legions were met by the brave people who struggled so long and faithfully for their homes. They were little better than mud-banks, the islands and mainland at the mouths of the rivers which flow into the North sea from the southeast, the Scheldt, the Rhine, and the Meuse, or Maas, which with their many channels cut into fragments the lands between them, and which for ages had been bringing down and depositing mud and slime with the sands thrown back by ocean, reclaiming and abandoning alternately, until it were difficult to tell which was master, the land or the yater. Of both land and water, however, the people here proved themselves eventually masters. Frisii were called those who dwelt on the right bank of the Rhine, possibly of Gallic origin, while the Batavi, or inhabitants of the island at the mouth of the river, as well as the Belgae in the southern part, were of Teutonic strain.

But whoever were the occupants of this wet, dreary, amorphous land, their battles here with nature must prove their death or make them strong indeed. The larger part of the region was certainly uninhabitable, and for the rest there were great stretches of morass, with hillocks of moist earth and shallow lagoons, the lower part of the country being below the ocean at high tide, and wide areas subject to overflow from the streams as well as inundation from the sea.

A large portion of the surface of Belgium and Holland, as the Netherlands are now more generally called, is a level plain, the side next to France, however, rising in places into hills, while in the north the sea is walled out by a bank of sand-dunes 50 or 60 feet high, and from one to three miles in width. Though in both countries the climate is damp, it is more so in Holland than in Belgium, where in the more elevated parts the air is dry and mild. Yet the extremes of heat and cold are severe, particularly in the lowlands, ranging from 25 degrees below zero to 105 degrees above. For about three months in the year the rivers and canals are frozen.

In such manner as best they were able, it was on these sand-dunes that the earliest inhabitants lived, gathering their food for the most part from the water, and little by little reclaiming the land around them.

The Romans taught them many things, treating them rather as subjects than as slaves—taught them how to cut water channels and canals how to construct, dykes and so confine the streams within their,

legitimate bounds; taught them how to manufacture brick, make roads, and build houses, thus relieving these rude barbarians from their burrowings in the sand as well as their lands from the waters. On every side are seen traces of the good work left by the Romans in Rhineland, and dark indeed were the centuries following their departure. Early in the Roman occupation of the country, Drusus, to facilitate his military operations, cut a canal from the Rhine to the Flevo, through which the Roman fleet made its way to the North sea, and thence by the navigable waters of the Ems and Wesser far into the interior of Germany.

And so these aboriginal Dutchmen both, before and after the long visit of the Romans, began and continued to help themselves, learning of all to fight, and continuing to keep their hands in practice, for their land,—the little they had of it—fighting the ever encroaching water, fighting Germans on the one side and Frenchmen on the other, among themselves when there was no one else to fight. Meanwhile bailing out their leaky country and keeping it as free as possible from Spaniards and the plague, they not only made for themselves a soil and a livelihood at home but planted great settlements abroad. For once reclaimed from the elements, these Netherlands, or Pays Bas as the French called them, proved a fertile spot, fertile in many ways, materially and intellectually, productive of men and money, and sending forth an influence throughout the world such as has been the fortune of few lands to exercise. Not a few there were who migrated to the British isles, carrying with them their arts and inventions and making their impress on the English language and literature.

Thence went many to the New World, the New Netherland, some as religious devotees, some as colonists, the to settle in New York, New Jersey, Pennsylvania, and Delaware. Of other lands the Dutch have taken and held possession, making for themselves a foothold in the East Indies, in the West Indies, and in Africa, as well as in America.

While the soil of Nederland cannot be called rich on the whole, yet there are fertile sections, and in the lower parts is much good grazing land, cattle and sheep being here the principal industry. On the hills of Belgium grow forests of oak, ash, and beech; and although the marshy soil of Holland is better adapted, to pasture than tillage, orchard fruits, garden vegetables, besides oats barley, and flax are successfully cultivated. Among industries, however, as I have said, dairy farming, and the raising of domestic animals come first, and are conducted by systems which natural conditions have rendered somewhat peculiar. There are now but scant timber lands; little wheat is grown on the lower levels, where fruit trees and the vine are also rare; but rye and oats do well, and potatoes particularly so. Probably four-fifths of the 8,000,000 acres of Belgium's surface is devoted to pasturage 100,000 acres to woods, 300,000, to cultivation, and 50,000 acres to sites for cities and towns. Tobacco and hemp do well; also flax, particularly in Flanders, where there are no forests, an abundance of turf supplying the inhabitants with fuel. There is some bee-culture in Limburg.

In Holland lakes are numerous but not large. Notwithstanding all the drainage that has been done there are still some marshes left, for the most part in the north. Communication throughout the interior is mainly by canals, on which boats pass at stated hours. They are of varying width and depth, the north canal, which extends from Nieuwdiep to Amsterdam, having a width at bottom of 38 feet, at the top 125 feet, with a depth of 21 feet, large enough for sea-going ships of moderate size. It is 50 miles in length, and enables vessels from Amsterdam to escape the perilous navigation of the Zuyder-zee. This canal, the commercial artery of the Dutch metropolis, without which that city would long ago have lapsed into obscurity, was begun in 1819 and completed in 1824 at a cost of $5,000,000.

Between Vianen on the Leck and Gorcum on the Meuse, extends the canal of Zederick, shortening the passage by eight days between Amsterdam and Cologne; between Bois-le-duc and Maestricht is the canal of Zuid-Williems-Waast, admitting vessels of 800 tons. Broad fine roads run everywhere along the tops of dykes, extending for miles in straight lines. Many of them are paved with bricks set on edge, making them durable and as smooth as a floor, rows of trees being usually planted on either side. Railroads are becoming quite common, but the bulk of traffic is and long will be on the canals.

Of many of the towns of Holland a dam was the necessary beginning,—hence the ending of their names, among the rest Rotterdam, or the dam of the Rotte River the stream, taking its name from the rotting of flax stalks in its waters when the linen industry began to flourish here centuries ago. Rotterdam's history may be written from its dykes and dams, its dam being at the time of its incipiency; first dyke AD 1000; junction with main dyke, 1281; charter secured in 1340; becomes a city of the rank 1615. A canal or new channel for the river Maas was made from Maasluis to the sea, fifteen miles in length, thus saving to Rotterdam its commerce. Many dykes were made, some of the larger ones requiring no little engineering skill and money. One, extending along the Maas from the sea back almost to the river Issel, forty miles in length, 35 feet wide at the top, and 30 in height, was thrown up in sections and completed by Count Floris V in 1281, when the junction before mentioned was made with the main dyke. Upon the invasion of the Spaniards in 1575 the bank was cut away in places and the water turned in upon them, flooding the country back as far as Leyden, thus not only drowning or driving out the Spaniards but floating the Dutch rescue boats laden with provisions.

Granite blocks brought from Norway enter largely into the construction of the dykes; timber, turf, faggots, and clay are likewise used. Their estimated cost is $1,500,000,000, and the annual expenditure on them $2,000,000, their care being under a board of commissioners, who exercise the closest supervision as on them depends the existence of the country.

Most important of all the waterways is the Merwede, a deep wide stream controlling the Rhine and Rhineland commerce. At Gorcum, where the Maas and the Waal unite, as well as at other points on the river, the surrounding country is well protected by massive embankments.

Between the three great rivers, the Scheldt, the Rhine, and the Meuse, with their branches, canals, have been constructed, thousands of windmills set to work pumping the surplus water from lower to higher levels, until it is carried away and emptied into the sea. When the Romans were here, the Scheldt sank into the quicksands before reaching its destination, and the thickets thereabout long protected the people from their invaders. The great gulf called Zuyder-zee penetrates far inland, and at the mouths of the rivers are sometimes arms of the sea.

Windmills have ever played an important part in the economic development of Holland and Belgium; the number in operation being estimated at 100,000. The pattern introduced from the east was greatly enlarged by the Dutch, particularly the fans, thus affording more motive power for heavy machinery; they are made to do service in a variety of ways, as pumping water, sawing wood, grinding grain, in a word taking the place of steam. Nearly 100 lakes have been drained and the beds turned into fruitful, fields. There are hundreds of shipyards; also oil-mills and tobacco and brick manufactories. Delft has a large earthenware factory; sugar-refining is conducted on a large scale, and there are many distilleries breweries and paper-mills. Shoes are largely made in Friesland and elsewhere, and there are extensive woolen and silk industries.

Belgium has large coal and iron fields; lead, manganese, and zinc abound, as well as fine building stone and marble, notably the black marble of Dissant; and there are several famous mineral springs. Though less in length than those of Holland, the canals of Belgium are important, the largest the Brussels canal being completed in 1550. The Ghent Canal, opening into the Scheldt admits, vessels drawing 18 feet of water.

Many long years are required in which to make a nation; a savage then a civilized nation—to tone down the outside brutishness; for the whole of the brutal element in man's nature, judging from his progress thus far, can those which would never be entirely eradicated. Many aids there are, which would seem the worse oftentimes proving the better for the purpose. Thus if Julius Caesar had not been driven on by fate or providence; had not he or others of his brother Romans been fired by hellish ambition to go forth and rob and slaughter and enslave the rest of mankind; had not the Goths come down upon the Romans, and the Franks on the Goths; and had not England Spain and Germany kept alive their ceaseless wars at the caprice of princes and kings—all more brutish than the quarrels of brutes, and more senseless than the slaughters of savages,—but for all this, or something like it, which seems to be the usual but mysterious law of progress, the Hollanders might still, for what we know, be burrowing in the sand and catching their daily supply of fish for food.

But Julius Caesar did not remain at home, and the Hollanders were not made of the stuff to continue forever barbarians. The Batavians made good soldiers, and for four centuries they were to be found among the Roman troops. After the time of Honorius their name disappears from history, and their island was occupied by the Franks while the Frisians threw off the yoke of Rome, none the worse for their mild and temporary subjection.

The dykes and canals built by the Romans, greatly to the country's advantage, were on their disappearance left to a great extent to the mercy of the elements, and for the most part disappeared, but only to be reconstructed later.

In due time the sand dunes and swamps were made to blossom and the land became rich. The Frisians were a thrifty race, as all must be who work out their lives to great successes amid adverse circumstances; from their tribal estate, living in huts on the sand-mounds, they went to hunting in the forests and building walled towns and possessing flocks, and slaves, and an army 120,000 strong wherewith to fight the Romans. The highland people became one with the conquerors, but the lowland tribes held aloof, hiding themselves in the swamps and thickets. During the sixth and seventh centuries the Franks became masters of the 191 several Netherland provinces, Friesland being the last to be subdued to the French crown by Charles Martel, who thus opened the way for Charlemagne to unite in his vast empire Germany, France, and Lombardy. As this empire later became broken into fragments the Nederland found itself sometimes under German and sometimes under French rule, but finally bearing the names of Friesland and Lotheringia.

Once in the time of Vespasian the Netherlanders revolted, but were easily enough subdued. Being in the pathway of the Goths to Italy, the low-country people were among the first to receive a change of masters, and for the century or two following were buffeted about between Franks and Vandals; Saxons, Frisians, Alani, and Suevi; until finally the Franks became dominant, as before related, and the Christian church in Friesland was established at Utrecht by Dagobert, who became ruler.

After Charlemagne, or Karel de Groote, as the Dutchmen called him, was crowned at Rome in the year 800, the southern and northern Netherlands were united once more. And so they remained for seven centuries and more, subject to various powers, Frankish, Burgundian, Austrian, Spanish, until they made themselves free by the formation of the Dutch republic. As long as he lived the great Charles spent much of his time in Nederland, of all his many palaces that of Nymegen seeming to him the most pleasant. There on the site of an old Roman castle overlooking the river Waal, he built the Valkhof, trace of which may still be found. Many were the churches and universities, the monasteries and beautiful palaces built by Karel de Groote, for he was a man of parts and progress. Though the Frisians with the Saxons often successfully rebelled under Charlemagne, they never rose from their subjugation until the time of final separation from the empire of the Franks, when they secured for themselves the name and position of free Frisians.

A change of masters is not always a disadvantage to those already weighted down by divers tyrannies and oppressions. During their long and tedious journey from barbarism the Netherlanders had encountered many trials and vicissitudes. As the despotism of rulers pressed heavily upon them, guilds for mutual protection were formed, which was the origin of municipal corporations, so that a hundred years later Flanders was dotted over with corporate towns. Commerce arose, and with commerce, piracy. Wool was largely imported from England; the Belgium herring fishery became a source of wealth, and so valiant grew the men of Flanders in the Norman pirates, that William the Conqueror, when he invaded England made up his army largely of Flemings, and the Flemish queen of the conqueror with her own hands embroidered the tapestry of Bayeux representing the event. Fishermen became pirates, and pirates wait on kings; Flemish weavers and became merchant princes, artisans of every trade fill the streets,—brewers, clothiers, and workers in silk and iron. Hence it is that the rich Netherlands, in common with other countries, tempt the wild Northmen to piratical inroads. Down they come, when no longer is to be feared the iron hand of the great Karel, these Vikings of stern aspect and powerful frame, in their long galleys on whose outer sides, hang their heavy shields and, falling on the seaboard towns, with their heavy swords they hew down all who oppose them, meanwhile chanting their war song to Woden; then comes pillage, followed by the torch. Thus along the centuries these fierce Northmen reap where they have not sown, penetrating Nederland up the rivers as far as Tiel Vianen and Deventer Utrecht and Nymegen, gathering rich harvests and leaving their pathway strewn with desolation Some of the Scandinavians came later to live in the land, settling as farmers or fishermen in Dorestadt, Walcheren, and Kennemerland; yet the Dutch did not find them very quiet or a peaceable neighbors.

When in 925 the Carlovingian dynasty ended, the rulership of the Netherlands passed from Frank to German, becoming a political part of Lotharingia, under Dirck I, count of Friesland, whose successors were later called counts of Holland, and to whom the country was given by the last of the Carlovingian kings. It then became broken into feudal holdings, as Friesland, Holland, Zeeland, Drenthe, Overyssel Utrecht, Groningen, and many minor ones. The crusades, or as the Dutch called them the Kruistochten, or campaigns of the cross, brought to the front some good Dutch families, as the Brederodes, the Arkells, Floris III, Willem I, and Baudewijn, or Baldwin IX, of Flanders, who for want of something better to do took, Constantinople, and held possession of the Byzantine empire for a period of 56 years. This frenzy, which spread over Europe, enfolding in fiery zeal superstitious kings and cavaliers, brought relief to the burghers who were not slow to use their wealth for the enlargement of their liberties. During the tenth century, under the feudal system, the country was cut

up into little princedoms, some of the rulers owning allegiance to the king of the Germans and some to the king of the Franks. The crusades brought blessings to the Netherlands, as well as some curses; feudalism was weakened; the serfs were liberated; and the preaching of Erasmus, Wickliff, and Luther was made possible.

The first count of Holland was created by Charles the Simple in 922, and afterward were established the dukedoms of Luxemburg, Limburg, Brabant and Gueldres, and by the thirteenth century the countships of Flanders, Zeeland, Artois, Zutphen, Namur, and Hennegan. Of these princes the count of Flanders was for a time preeminent; then the dukes of Burgundy came to the front, and in 1437 Philip the Good ruled the Netherlands. At the counts of Holland had their home at Haarlem, but later they built a castle in the forest near the sea, throwing round the place a hedge, so that later it was called the Hedge, or Hague.

The house of Hapsburg was next to take possession by the marriage in 1477 of the daughter of Charles the Bold, Mary of Burgundy, with Maximilian, archduke of Austria. When her grandson, Charles V, abdicated in favor of his son Philip II, of Spain, the Netherlands comprised four dukedoms, seven countships, five baronies, and one margravate, containing as was asserted, though probably exaggerated, 350 cities, 6,300 towns, besides castles and villas. The Dutch did not like such rulers as Charles and Philip, aliens to them in every way; and when it was attempted to uproot the reformation of Luther by royal edict, and introduce the inquisition, the Netherlanders rebelled. In August 1566 the people arose under the prince of Orange and attacked the churches and monasteries, demolishing whatever was offensive to them.

The year following, the duke of Alva, with a large army, was sent thither; Egmont and Horn were beheaded at Brussels, and others suffered severely under the cruel measures enforced. Long wars with Spain and other nations followed, which it is not necessary to enter upon. The independence of the Dutch was finally secured. On one occasion when the French were upon them in great numbers, and they knew not where to turn, they cut away the dykes and flooded the country as the surest way to get rid of them.

In 1579 the provinces of Holland, Zeeland, Friesland, Groningen, Utrecht, Overyssel, and Gelderland formed the union of Utrecht, which led to the union of the seven provinces, and the formation of the Dutch Republic. In 1806 Holland was erected into a kingdom, on the throne of which Napoleon placed his brother Louis, who abdicated in 1810. With a limited constitution the prince of Orange, under title of William I, was made king, upon the downfall of Napoleon, and has been succeeded by a second and a third William. The ten southern provinces became the kingdom of Belgium with Leopold of Saxe-Coburg as ruler.

Meanwhile followed the usual further tyrannies and impositions which wealth draws down upon it from those having the power to plunder. Force follows upon the heels of insolence; further quarrels arise among the burghers themselves, and civic broils stain the streets with blood. It appears that with all his contentions with nature, battling with the rivers and the sea, Roman Frank and German, the Dutchmen were not satisfied without the usual century or two of among themselves. A disgraceful quarrel between mother and son started the wars of the Cods and Hooks, which however senseless in the beginning led to important results. As more towns were built and their size increased and the country became opulent and populous, the commercial cities finally acquired such an influence in the affairs of state as to bring the government into a condition of practical republicanism. Then came a

period of luxurious living and consequent depravity. Men clad themselves in velvet, and put on ornaments of gold and precious stones.

Crime so increased that in one year 1,400 murders were committed in the haunts of gambling and debauchery in the city of Ghent alone. Yet amid all this licentiousness, as is often the case the Flemish, literature flourished, and it was at this period that school of painting arose.

Thus these muddy lowlands with fever-breeding swamps, and river and sea alternately rushing in to destroy them, became the garden of Europe; without gold or pearls, without the spices of the east or the mines of the north, here was the spot most highly prized of all his empire, whether the ruler was Burgundian or Spaniard. For conquerors and returning crusaders had brought from distant lands seeds which here developed luxuriantly, flowers and blooming bulbs, fruits and a great variety of useful and ornamental plants. It is said that the soil about Haarlem is exceedingly good for bulbs, and the coffee tree was found growing in the gardens of Amsterdam at an early day.

The Saxo-Frisian people consisted of three classes; freemen, serfs, and nobles, the last living in castles, the first in their own houses, and the serf in the hut provided for him. Common sense was among the mental characteristics of all classes. Many centuries before those royal devotees, Charles V and Philip II, were sending as they supposed thousands to perdition to save their own miserable souls. Christian priests persuaded Radbod, the Frisian king, to be baptized. On entering the water he paused and drew back. "And where may be my ancestors?" demanded Radbod.

“They are all in hell, your royal highness." replied the priest.
"Then will I to hell with them" said the king as he went his way.

The country was now becoming yet more wealthy and populous, the chief cities of the house of Burgundy, Ghent Bruges and Antwerp, being conspicuous throughout Europe for their opulence and magnificence. Land reclaimed foot by foot, as in Holland, naturally became valuable. The streets of the towns are for the most part narrow, and the houses high, and built on piles thickly placed and driven deep into the soft moist earth. In ages past, before cleanliness became an indispensable practice with the Dutch, the pestilence had much its own way in the land.

The herring fishery is called the Dutch goldmine. Amsterdam, as is said, being built on herring bones. At Vlaardingen herring are taken in nets a mile in length drawn twice a day by steam power.

For centuries this industry has flourished, making many rich. Canal boats drawn by horses four miles an hour are much used in travelling. An association called the Society for the Promotion of the Public Good, was organized in 1784, and has increased in branches and membership until it overspreads the entire country. Pauper colonies are kept on waste lands at an expense of $i1,000,000 a year, and 55,000,000 is spent annually in charity.

Commerce centralized itself at Utrecht, and long before Rotterdam and Amsterdam were places of importance, Maastricht, Dorestad, Deventer, and Stavoren, one after the other became busy marts of trade, where were marketed the wheat of France, the wool of England, silks and spices from the far east, the riches of the upper Rhine, and the hemp and rye, the butter cheese and honey of the Belgic Netherlands. After the crusades, which liberated so many of the serfs and communicated ideas and information regarding the culture of eastern lands, the canals and dykes were greatly improved; locks were placed in the waterways and scientific engineering applied to drainage. The pile-driver came to

the aid of the land-reclaimers and a more substantial foundation was given to the country. Bricks were made and used in large quantities, as well as tiles, and terra cotta work of all kinds.

Traffic with England as well as with the Mediterranean and the orient, exalted Bruges into a city of the rank. It became the entrepot alike for Italian goods, for the spices of India, and for the raw and manufactured products of Great Britain. And so it remained, prospering as did Venice, until both fell into decadence with the decline of the overland trade with India incident to the discovery of the passage round the cape of Good Hope. Not many years later grass began to grow in the market place of Bruges, and moss to gather on the marble steps of Venetian temples of commerce.

The Dutch were ever noted for new ideas and well directed enterprise in regard to their farming methods. They taught Europe many things—among others how to fashion and use superior implements, how to make the land productive, and how to take care of stock, keeping the cattle-sheds clean, and blanketing cows and sheep while depastured in cold weather.

Flax from Egypt was a prominent factor in Dutch as in Belgian economy; the quality of the fiber was much improved, and Flemish flax was held in great estimation, the manufacture of linen leading to other industries, notably lace-making. Throughout the entire country, indoors and out, cleanliness and order prevail, all having a general air of wealth and comfort. The riches of the land are well distributed among the people, and yet there is little display of wealth merely for the sake of display.

Amsterdam, the Dutch Venice, is conspicuous among the cities of the world by reason of its many canals, docks, harbors, and bridges; likewise its gardens, zoological and botanical, and its museums, the new Ryks with its picture galleries, besides others, which were in the Van der Hoop and Trippenhuis, and the Fodor museum. The features, of the palace are the council chamber, throne-room, and tower. There are some fine residences in the new part of the city, where is also the Palais voor Volksvrit or, Crystal palace. In Amsterdam were the headquarters of Lombard money-lenders in the days before banking was established, kings and princes being among their customers.

Schiedam, once famous for its printing and publishing offices, is now noted for its gin, the words Aromatic Schiedam Schnapps being familiar to lovers of this tipple the world over. Two hundred distilleries here pollute the atmosphere with the smoke of their tall chimneys, and on the refuse of the grain brought from America and elsewhere great droves of swine are fed. Haarlem has in the Groote Kerk a great organ, which people come from afar to hear; the industrial museum in the park pavilion is also an object of interest, and in the cathedral is much of historic value.

Leyden, the Lugdunum Batavorum of the Romans, has three famous museums,—those of natural history, ethnography, and antiquities respectively; besides which are the university, botanical garden, municipal museum, and the Furcht, or old castle of Drusus. Utrecht, or as the Romans called it, Trajectum ad Rhenum, has an historic church finished early in the eighth century, enlarged in the eleventh, reconstructed in the thirteenth, and after being almost destroyed through various causes, restored in the nineteenth. From the top of the tower, 338 feet high, the greater part of Holland can be seen.

The Hague has a royal library, municipal museum, and a picture gallery containing some fine specimens of the Dutch school. The royal palace, park, Huis ten Bosch, or royal villa in the woods,

national monument, and statues of William I in the Plein and William II in the Buitenhof, add to the interest of the place.

Conspicuous among the sights of Rotterdam are the Boompjes, the quay a mile or more in length along the Maas, the Boymans museum, and the church of St. Lawrence. The principal mint has for centuries been at Dordrecht, or Dort as the Dutchmen say "for short." Count Floris III stamped his coins with the arms of Holland, three vertical stripes on a shield, and on the central stripe three crosses of St. Andrew. Dordrecht was also at one time a great commercial center.

The Dutch dispute with the Germans the honor of inventing the printer's art. In the market-place of Haarlem was erected in 1856 a statue of a man holding a type in his hand, thus standing as a perpetual protest to Thorwaldsen's monument to Gutenberg at Mainz. But the men of Mainz and Haarlem, had they lived in China eleven centuries ago, would have seen what was done with movable types 600 years before the lifetime of Gutenberg or Coster. There is no doubt, however, that Dutchmen erected the paper mills in England and in America, the former being at Dartford in 1590, and the latter in 1690 on Wissahickon creek, near Philadelphia.

Brussels has in its new Palais de Justice, an edifice of sculptured marble covering an area of 270,000 square feet, with a tower 400 feet in height, all of which was erected at a cost of some $10,000,000. Other, notable civic edifices are the bourse, or exchange, and the hotel de ville, the latter completed about 1450, and with a graceful tower 364 feet high. The Maison du Roi, now occupied by the communal museum of antiquities and art, was built early in the sixteenth century and recently restored. It was here that the counts of Egmont and Hoorn were imprisoned and executed. In the Royal and Burgundian libraries are many manuscripts and engravings, in addition to valuable book collections, and in the Porte de Hal, erected in 1381 and used as a prison in the sixteenth century, are the weapons of various ages, while in the cathedral is a carved wooden pulpit which attracts much attention. Among the other architectural monuments of this beautiful city are the Palais de la Nation, or legislative halls; the Palais du Cinquantenaire of industrial and monumental art; the duke of Arenberg's palace, the Martyrs monument, in memory of those who fell in the war with the Dutch in 1830; the Congress column for the constitution of 1831, and many other structures, both decorative and ornamental amid the spacious boulevards and parks.

Bruges, that is to say bridges; so many are the canals of this ancient city, was, as I have said, the chief commercial center of Europe in the fourteenth century.

In the church of Notre Dame, erected in the twelfth century with a spire, lately rebuilt, to a height of 390 feet is the tomb of Charles the Bold. There are in the old quarter the usual cathedral, the hospital, Gothic hotel de ville, a fourteenth century structure, palais de justice, municipal library, and academy of art, all having pictures or carvings worthy of admiration. With the help of England, Russia, and Austria, the Belgians made themselves independent of Holland after the Bourbons were driven out of France in 1830. But liberty costs the Belgians money, less than 6,000,000 of them being saddled with the support of an army of 60,000, to say nothing of the building of many fortifications. Much of the farming land is well ditched for drainage, and some of it is worth from $500 to $750 an acre. The soil is fertile and, will yield sometimes 90 bushels to the acre of oats and 290, bushels of potatoes.

Antwerp, or Anvers, the chief seaport of Belgium, whose population of 200,000 in the sixteenth century fell to 40,000 in the eighteenth and now is estimated at 250,000, has a fine, Gothic cathedral,

begun in the fourteenth and completed in the sixteenth century, with several subsequent restorations; the spire is 402 feet high with chimes of 99 bells, while within are several of the most famous paintings of Rubens, the tomb of the great artist being in the church of St. Jacques. Worthy of mention also are the churches of the Augustines and St. Pauls', the zoological gardens, and the museum with its collection of more than 1,000 pictures, many of them the works of Flemish masters.

Though not externally attractive, the interior of the cathedral of St. Bavon is second in art decorations to none in Belgium, notable among which is the 'Adoration of the Lamb,' painted in 1420-32 by Jan and Hubert Van Eyck for Philip the Good. The church of St. Michael, built between t 1442 and 1480, was used in 1791 as a temple of Reason. There yet remains of the ancient palace of the counts of Flanders, where John of Gaunt, or Ghent, was born, built in the ninth century, the Oudeburg, or castellated gateway which was not erected until about three centuries later. Many quaint old buildings still stand around the Vrydagmarkt, or Marche au Vendredi, in which square heretics were burned by the duke of Alva, where 500 persons were killed in the affray between weavers and fullers in 1341, and where in 1381 the citizens administered to Philip Van Artevelde the oath of allegiance before being led against Louis.

Both Ghent and Bruges are cities of belfries and bells, the former having chimes of 44, and the latter of 48. The Ghent belfry, 375 feet in height, has a vane called the golden dragon, which was brought by Count Baldwin from St. Sofia in Constantinople in 1204. Two distinct styles of architecture characterize the Hotel de Ville, one of the facades being of the Italian renaissance and erected about 1600, while another is of the flamboyant Gothic so conspicuous during the fifteenth century.

In Holland there are many large towns, more probably than in any other European area of equal size; for manufactures are rapidly increasing, though the country is lacking in mineral wealth, a few mines of coal and iron, copper and tin, the first in the province of Limburg and belonging to the state, forming about the only resources in this direction. Nevertheless there are nearly 5,000 manufacturing establishments in which steam power is used, distilleries and breweries alone exceeding 1,200 in number. Cotton and woolen mills are numerous; iron and machine shops flourish under the free importation of raw material; there are also sugar refineries and salt works; leather, carpets, pottery, and gold and silverware being among the various industries which give employment to 150,000 operatives.

Agriculture is extremely diversified, farm products differing widely in the various provinces even on the same character of soil. In some provinces the land is being rapidly exhausted by raising three crops a year of rye and buckwheat; in others even the pastures are improved by the use of fertilizing substances. Stock raising and dairy farming are more profitable than cereal crops, near half the entire area of the country being devoted to grazing or to the growth of fodder plants. The value of dairy and other animal products is probably not short of $100,000,000 a year, affording a large surplus for export, which is partially offset by the importation of grain and flour. In a country where 5,000,000 people must live on 12,600 square miles of surface, or nearly 400 to the square mile, it is no wonder that the land is minutely subdivided, more than 100,000 farms being of less than 20 acres, while only a few hundred exceed 200 acres.

Though Holland is no longer, as in former days, the greatest commercial country in the world, her volume of trade is very considerable, more than doubling itself within the last score of years, and with a healthy proportionate increase in the value of exported commodities. Prussia, Great Britain,

Belgium, the United States, and the Dutch East Indies absorb the bulk of the traffic; but as official returns are made only in the weight and not in the value of articles, exact figures cannot be readily ascertained. It may, however, be stated in general terms that Holland receives from Prussia, England, and Belgium coal and manufactured goods, cereals from Russia, wine from France, timber from Norway, and spices, coffee, sugar, and tobacco from her colonies; sending in return her colonial wares to Germany, and her native food products, including those of her fisheries, to various European countries, and chiefly to London markets.

The shipping trade, and especially the carrying trade is very considerable, Rotterdam, Amsterdam, and Flushing ranking in the order named as the leading commercial ports. That the inland trade is also of large extent is shown from the fact that there are some 2,000,000 miles of canal in this land of such diminutive proportions that it could be contained nearly twenty times over in the single state of Texas.

But none know better than the Dutch how to make much out of little, two or three acres of their fertile soil sufficing for the comfortable support of a family. Their past has been one continuous struggle with difficulties; first in their contest with the sea and their efforts to obtain the means of a livelihood, then in the long and doubtful strife with hostile neighbors which terminated in their hard-won independence. If they are not an attractive people, they are a people with many excellent qualities, brave, honest, self-possessed, and while charitable, yet frugal in the extreme, as indeed they must be in order to live. The Dutchman wears not his heart on his sleeve; is not given to sociability; says little, and is seldom known to laugh. Yet beneath his stolidity of character may readily be traced the sterling features which have left their impress on the bright page of his nation's history.

Miscellany

In Belgium the influence and culture, first of the Romans and then of the Franks, were greater than with the less tractable tribes of the north. The armory of Belgium is at Liege, near which, at Seraing, is one of the largest machinery manufactories in the world, covering an area of nearly 300 acres. The early Netherlanders were not all poor if we may believe the Nibelungen Lied, the German Iliad. Thirty-six wagon loads of treasure, gold and precious stones, gave Siegfried, prince of the Netherlands, to his wife as dowry. There must have been good mines in Nibelungenland, whence Siegfried obtained all this wealth, unless the Nibelungen Lied did indeed lie; but as to that who shall say? Suffice it for us to know that the hoard is lost to us and is not now on exhibition as one of the show things of the Dutch; for after the murder of Siegfried Hagan seized it, and with a view to concealment sank it in the Rhine at Lockham, but was assassinated before the time came for him to recover it. In Holland was invented Knecht Globes, that is to say Santa Claus, or St. Nicholas, the patron saint of children; Brussels, whose history dates from the eighth century, attained to the height of magnificence as the seat of the brilliant court of Charles V, after the Netherlands had passed into the possession of the Hapsburgs. It is still half French and half Flemish in architecture as well as in character. The city hall, government buildings, royal museums, and ducal palaces are among the conspicuous structures. The palace of justice, as I have said, cost $10,000,000, and covers more ground than St. Peter's at Rome. And yet more prosperous and wealthy under this monarch became Antwerp, surpassing even Venice. Great fairs were held here during the middle ages to which came merchants from every quarter of the earth. During the reigns of Charles and Philip of Spain the world's commerce centered at Antwerp, a thousand vessels lying at anchor in the Schelde, which is here broad and deep and a hundred, sometimes arriving and departing in a day. Spices and sugar were imported from Portugal, to the value of $8,000,000 a year; silk and gold wares from Italy, grain from the Baltic, $7,000,000; from Germany and France, wines, $8,000,000.

The imports from England alone amounted to $30,000,000 a year. Thousands of foreign commercial firms established themselves here, some of them becoming very wealthy. One of the Fuggers, of Ausburg, who died here, left property valued at $6,000,000, an enormous fortune in those days.

Ypres had in the fourteenth century a population of 200,000, with 4,000 looms in operation; now there are 16,000 people, mostly linen and lace makers. The halle de drapers or cloth hall, built in the thirteenth century, is one of the conspicuous edifices of the town.

Under the despotic rule of Jacques Van Artevelde or the brewer of Ghent, commerce with England increased, greatly to the profit of the citizens. The Marche du Vendredi where the mediaeval guilds met to declare their rights and avenge their wrongs, and rulers were made and deposed, has been the scene of many historical events.

The railway station of Bruges is in the old Marche du Vendredi, where, after the election of Theodoric as Count of Flanders, the townspeople said to the messengers of the king of France "Go, tell your master that we will none of him, that we have elected a new sovereign as becomes nobles, and burghers of Flanders." The interior of the cathedral, a Gothic brick building of the thirteenth century, is finely proportioned and filled with paintings. The Grunthunse palace, a fifteenth century edifice has a fine gabled facade. The pictures of the academy were placed temporarily in the museum building.

Witte Saey Halle is the ancient merchant-house of the Genoese, later the property of the linen manufacturers.

It is said that one fourth of the 50,000 people of Bruges are paupers. The glory of the fourteenth century has indeed departed from this place, when were stationed here 20 foreign ministers, and factories, or privileged trading companies from 17 kingdoms. It was during the previous century that Bruges became one of the great marts of the Hanseatic league, Lombards and Venetians conveying thither the products of Italy and India, and carrying away those of Great Britain and Germany.

The population of Belgium, about 6,250,000 has nearly doubled since 1830. In religion the people are mostly Roman Catholics, with 15,000 Protestants and 3,000 Jews.

Owing to the unstable nature of the soil, many of the high narrow houses in Holland have sunk out of the perpendicular.

As a great part of the country is below the channels of the rivers as well as below the sea, to prevent inundations it is necessary that the dykes should be strongly constructed. They are built of clay and sand on a broad foundation, the surface covered with willow twigs, and the interstices filled with mud which condenses into a solid mass impervious to water. The roots of trees planted along the top tend to strengthen the structure.

As in every part of Europe, picture galleries, cathedrals, and show palaces in Belgium and Holland bring in a large revenue from sight seers. America contributes many millions annually to this fund.

The Dutch houses are built usually of red brick and white cement, high and narrow, the beams projecting from the gables being used for hoisting purposes. Wealthy citizens reside in suburbs in spacious homes embowered in foliage.

The polders, or lands reclaimed from morass or lake, are exceedingly fertile. On the other hand the dunes, or downs, afford little foothold for vegetation.

For colonies the Dutch have in the East Indies, Java, Sumatra, Borneo, and Celebes; besides which there are factories on the coast of Guinea, and in the West Indies the colonies of Surinam, St. Eustache, and Curacao, in all amounting to 766,000 square miles with 32,000,000 of population.

Belgium has no navy; Holland maintains some 130 warships, and a merchant fleet of 625 vessels, including 150 steamers. Holland supports for war purposes, at home and in the colonies, about 100,000 men, while Belgium's standing army, 60,000 as I have said on a peace footing, can be increased to 130,000 in time of war.

Belgium is extremely liberal in educational matters, expending about 40,000,000 francs a year on elementary education alone, as the contributions of the state, of provinces and communes, an additional sum being received in the way of fees. There are more than 6,000 private schools, with some 1,500 infant, 2,000 adult, and a large number of middleclass schools, to say nothing of colleges and royal athenaeums. In the athenaeums a professional course is given, preparing students for scientific, industrial, and commercial pursuits, the professors and regents being chosen by the king. There are also four universities, in connection with which are schools of engineering, mining,

manufactures, arts, philosophy, etc. Liberal subsidies are granted, the students selecting tickets for the branches they intend to pursue, the cost not exceeding 200 or 250 francs a year.

The numerous charitable and benevolent institutions of Belgium are intended for all classes and include first, those intended as asylums for the poor, whether poverty be caused by age, infirmity, or want of work; second, those intended for the suppression of mendicancy, and third, those which encourage independence and economy among the working classes, among them being associations for mutual assistance. It is the aim of the municipal authorities to prevent crime rather than to punish it, and for this purpose workshops open to all have been established in large centers of population, as Liege and Ghent, the able-bodied being paid in proportion to their work and the infirm and aged according to their needs.

The Fabrique Nationale, or arms factory at Herstal was established in 1891, in order to compete with foreign manufacturers, the weapon-makers of Liege, while aggregating a large number, owning smaller factories. Owing to the coal deposits near Liege zinc, engine, and other foundries are in operation as well as a gun factory and cannon foundry. At Chenee are copper foundries and glass works. Oil, saw, flour, paint, paper, and cement mills are at Zaandam and neighboring towns, driven by a string of 400 windmills. Cheese is made at Alkmaar and vicinity to the amount of 10,000 tons annually.

There is a little nest of Dutch millionaires at Zaandam; there are some rich East India nabobs at Arnhem, and some pauper colonies at Frederiksoord, Wilhelmenaoord, and Willemsoord. There are many fine chateaus around Utrecht, and the peasants at Groningen are conspicuously prosperous. The pottery and porcelain factories at Delft, famous in the seventeenth century, have been revived after a long period of decay.

Chapter the Twelfth: Austria and Hungary

Miserliness is a capital quality to run in families; it's the safe side for madness to dip on. This inalienable habit of saving, as an end in itself, belonged to the industrious men of business of a former generation, who made their fortunes slowly, almost as the of the fox belongs to the harrier—it constituted them a race which is nearly lost in these days of rapid money-getting, when lavishness comes close on the back of want. In old-fashioned times, an independence was hardly ever made without a little miserliness as a condition, and you would have found that quality in every provincial district, combined with characters as various as the fruits from which we can extract acid.

L'extreme avarice se meprend presque toujours; il n'y a point de passion qui s'eloigne plus souvent de son but, ni sur qui le present ait tant de pouvoir, au prejudice de Vavenir.

—La Rochefoucauld

Or puoi, figliuol, veder la corta buffa
De'ben che son commessi alia Fortuna.
Perche I'umana gente si rabbuffa,
Che tutto I'oro, ch'e sotto la luna,
O che gia fu di queste anime stanche,
Non potrebbe farne posar una. —Dell' Inferno.

What is gold worth, say
Worth for work or play,
Worth to keep or pay,
Hide or throw away,
Hope about or fear?
What is love worth, pray?
Worth a tear?

Golden on the mould
Lie the dead leaves rolled
Of the wet woods old.
Yellow leaves and cold,
Woods without a dove.
Gold is worth but gold;
Love's worth love.

Except Switzerland, Austria is the most mountainous of European countries, two-thirds of its surface lying 1,000 feet or more above the level of the sea. On the southwest many of the loftier summits of the Alps are 12,000 feet in height; on the east and northeast the Carpathians, 650 miles in length, range from 3,000 to 8,000 feet, the Hercynian and other chains being also included among the highlands which form a portion of the great watershed of Europe. Yet much of this mountain area is productive, vineyards covering many of the foothills, while cereals are raised up to an elevation of 4,000 feet, beyond which are forests of oak and elm, though in some regions, especially in Tyrol and Styria, is a wilderness of peaks and precipices, a region of glaciers, avalanches, and perpetual snows. In few countries is there a greater diversity of climate and natural products. Summer stays long on the southern plains, and in winter frosts are light and infrequent, unsheltered tropical plants being raised in southern Dalmatia. In the central provinces the seasons are more strongly marked, and in the north the winters are protracted and severe, the temperature falling to zero even as far south as Vienna. Vegetation is varied and rich; there is an arctic as well as a tropical flora, a flora of the mountains and the hills, and a flora of the marshes and the plains, representing in all about 13,000 species. In the fauna are included, among other animals, the wild goat, deer, and boar; the hare, beaver, otter, and bear; while rivers, lakes, and sea-coast abound in fish of nearly 400 varieties. Minerals are widely distributed, and in deposits of economic value are the precious and most of the useful metals, with an abundance of building and ornamental stones.

Such is the country which, after three or four centuries of Roman domination, was occupied by a succession of barbaric tribes almost until its annexation to Germany in 955, by Otho I, after whom ruled as margraves the Bambergs or Badenberg dynasty until the middle of the thirteenth century. Then comes a period of disputed succession, Rudolph of Hapsburg, after a series of wars with the female branch of the Bambergs, finally remaining master of the field, and in 1282 enfeoffing his sons Rudolf and Albert with the duchies of Austria and Styria. Thus was founded the Hapsburg line of sovereigns, to which belongs the present monarch, Francis Joseph, emperor of Austria and king of Hungary, Albert V, who married the daughter of Sigismund, being the first to obtain the crowns of Hungary and Bohemia, present, however, to be for a time disunited.

Passing over the intervening period, we find Austria, at the close of the war of the Succession, one of the most powerful of European monarchies, with nearly 200,000 square miles of territory 30,000,000 inhabitants and a revenue of 14,000,000 florins a year. With the aid of English gold and an English army under Marlborough, she had emerged victorious from the struggle, receiving from Spain large accessions of territory in the Netherlands and in Italy, while England received as her share of the spoils the islands of Gibraltar and Minorca. Then comes a war with the Turks, followed by further accessions, soon to be lost to the Hapsburgs, together with nearly all that Prince Eugene had acquired by his numerous campaigns. Thus war follows war, the seven years' struggle against Frederick the Great resulting in no territorial changes, though costing nearly a million of human lives, and plunging the nations of Europe into debt, Austria's national burden amounting to 160,000,000 florins. The season of peace which ensued was used by Maria Theresa in promoting the welfare of her people, in developing industries and commerce, in establishing an educational system, in relieving hardships, and in improving the condition of the serfs.

Of Maria Theresa, Carlyle remarks that no nobler woman ever lived, and of her son and successor, Joseph II, that he was a man of very high qualities but much too conscious of them. The latter gave himself to the work of reform with a zeal that altogether outran his discretion, well intended but

premature measures, especially the abolition of convents and of feudal vassalage, arousing a general feeling of uneasiness and discontent. The outbreak of the French revolution, followed by the execution of Marie Antoinette, sister of the reigning sovereign, was the signal for a war which, with brief intermissions, lasted until the abdication of Napoleon in 1814. For several years the result was in doubt, victory inclining to either side until Bonaparte appeared upon the scene. Then came disasters in quick succession; for the Austrian commanders were no match for the great general, nor did they understand his tactics. "This young Frenchman," growled Wurmser, "is a perfect blockhead, and knows nothing of the rules of war. Now he is on our right flank; now on our left, and then in our rear, anywhere in fact except where he ought to be." No doubt. The Austrian had yet to learn the secret of Bonaparte's success,—to strike the enemy unexpectedly and at his weakest point; to attack his armies in detail, and always to assemble at the point of attack a larger force than was opposed to him.

The Austrians fought bravely, and even when lighting against the army of Italy, probably the bravest troops in the world, the scales of fortune frequently hung in the balance. Had they been led by greater or opposed by inferior captains the result would have been different; but Wurmser, Melas, the archduke Charles, and others who held command were too slow in their movements, and knew not how to take advantage of opportunities. At the island of Lobau, for instance, the French, cut off by the flooding of the Danube, lay almost at their mercy; but secretly preparing a number of bridges, Napoleon threw across the river in a single night an army of 120,000 men with 300 pieces of artillery, and a day or two later the battle of Wagram laid the empire at his feet.

So it was on other occasions; at Rivoli, Marengo, and especially at Ulm, where a relieving force pushed rapidly forward might have averted surrender. "The Austrians are excellent troops," said their conqueror, "but they do not understand the value of minutes."

By the treaties of Campo Formio, Luneville, Presburg, and Vienna, Austria lost a large portion of her most valuable possessions, and was reduced to a shadow of her former self. Had it been Napoleon's aim to disintegrate the empire, or as with Spain and other of his conquests to bestow its crown on one of his relatives or favorites, doubtless he could have done so. Such, however, was not his purpose; but rather to place between it and France a network of subject kingdoms. Thus it was that in 1809 he addressed to the Hungarians one of those subtle yet stirring proclamations which he knew so well how to devise. "The moment has come," he said, "in which you may recover your independence. I offer you peace, the integrity of your country, your freedom, and your constitution. I want nothing from you. I only desire to see your nation free and independent. You form the finest portion of the Austrian empire, and have been treated only as a province. You have national customs and a national language; you pride yourselves on your ancient and illustrious origin. Take again your position as a nation; choose a king for yourselves who shall reign for you alone and shall dwell in your midst. A lasting peace, commercial relations, and a secured independence are the rewards that await you if you will be worthy of your ancestors and of yourselves." But the Hungarians had no faith in his promises. They cared also more for the preservation of the Hapsburg dynasty than for their own independence, putting aside all considerations of self-interest, and making common cause against the common oppressor. Rising in arms under the archduke John, they suffered a crushing defeat, and after submitting to French requisitions and exactions, were compelled to cede a portion of their territory.

Incessant wars had brought the finances and industries of Austria and Hungary to the lowest ebb; for after every reverse the army must be recruited and its equipments replaced at whatever cost. Then

there were heavy indemnities to pay, together with the spoliations of a system of war in which the spoils that belong to the victor were interpreted to mean about all that the victor could lay his hands on. In the vain attempt to maintain the military prestige of Austria no sacrifice was considered too great. The emperor raised money on his private estates; public officials relinquished their salaries or were compelled to relinquish them; provinces, corporations, and individuals contributed freely of their substance; forced loans were exacted and the duties on merchandise raised to the highest point that commerce would bear. The cost of food increased enormously, and during the blockade of the continent by English fleets such articles as coffee, tea, and sugar could not be had at any price. The public debt amounted in 1810 to 658,000,000 florins, and in this was included nearly 100,000,000 florins received in the form of British subsidies. In the previous year an order had been issued requiring the surrender of all precious metals in whatever form in exchange for government bonds and lottery tickets, and this not sufficing to pay the indemnity demanded by Napoleon, the sacred vessels of the churches were melted and cast into coin. Bank notes of all denominations, even as low as ten kreutzers, or two cents, flooded the land, until the entire issue of paper money exceeded 1,000,000,000 florins, its value rapidly decreasing to less than one-fourth of that sum. As a remedy all notes were reduced to a fifth of their nominal amount; but this only added to the distress, bringing ruin on the larger holders of national currency.

Nor were matters in better condition after the final overthrow of Napoleon in 1815, though new loans had been raised, and Austria had received nearly 50,000,000 florins as her share of the French indemnity. Finally a national bank was established to administer a sinking-fund of which the indemnity was to form the nucleus; but its notes were refused, or were only taken by money-lenders at a heavy discount. It was at this juncture that the Rothschilds, the Barings, the Laboucheres, and other Viennese banking-houses began to make themselves felt, bringing order out of chaos and dictating terms, first to Austria and then to other European countries whose finances were equally deranged. Thus for a time Vienna became the headquarters of a financial oligarchy which controlled the public debt of Europe as though managing a private estate.

Recovering a portion of her possessions through the partition of territory determined at the congress of Vienna, Austria was for many years virtually under the control of Metternich, one of the most selfish of men, but with statesmanlike qualities that rapidly exalted him to power. His measures were entirely of absolute monarchy, suppressing free institutions and all other forms of liberty, including the liberty of the press.

Yet his devotion to his sovereign was by no means genuine. As steward of the national estate he managed its affairs without deigning to render an account; he accepted bribes in the form of gifts from foreign potentates, and in private life his luxury and sensualism gave cause for scandal in one of the most luxurious and dissolute communities in the world. The French revolution of 1848, which profoundly shook the entire fabric of European monarchy, was nowhere more strongly felt than in Austria and Hungary, championed as they were in the cause of liberty by such men as Louis Kossuth. At Vienna the people rose in a body, and proceeding to the imperial palace insisted on a new constitution and the dismissal of the existing ministry, especially of Metternich, whose house was burned, while the autocrat who for forty years had controlled the destinies of the empire was glad to make his escape in a washerwoman's cart. The emperor and empress fled to Innsbruck, and quiet was only restored by yielding to the demands of a committee which dictated terms to the government. Venice, Milan, and other Italian cities expelled their Austrian garrisons, and Bohemia was in open

revolt. Hungary was the seat of a war which lasted almost until the congress of Dresden when it was, agreed to submit to the diet at Frankfort the affairs of the German confederacy.

An interval of peace was devoted to internal improvements and reforms. Agriculture and commerce were encouraged; new roads were built, railroads begun, and the last remnant of feudalism banished from the land. To the Austrian envoy Esterhazy was due the acceptance by the tsar of the terms of peace which ended the Crimean war. Presently came the war with France and Sardinia, the defeats of Magenta and Solferino, and the treaty of Zurich, whereby Francis Joseph ceded Lombardy to Victor Emmanuel, restoring to the princes of Tuscany and Modena all their former possessions, and becoming merely a member of an Italian confederation under the presidency of the pope. After the war with Denmark a dispute arose as to the division of the spoils, Austria finally ceding to Prussia her claim to the duchy of Lauenburg for the sum of 12,500,000 francs, while for Holstein she refused 300,000,000 francs. It was this refusal that chiefly led to the Austro-Prussian war, the result of which was the loss of Venetia, the exclusion of the empire from the German confederation, and the payment of 40,000,000 thalers, half this amount, however, being allowed for the surrender of all claims to Holstein and Schleswig.

Thus, after a struggle of more than half a century to maintain her supremacy in Germany and her dominion in Ital, Austria found herself with an empty treasury and with but the fragment of an army, left alone with her population of Slavs and Magyars whom all these years she had treated merely as the tools of her selfish ambition. Yet another misfortune was at hand in the Maximilian episode, the younger brother of the emperor setting forth for the conquest of the empire offered by Napoleon III and meeting his fate at Queretaro, while his widow, bereft of reason, lived for years a living death.

The dual constitution adopted in 1867 united the provinces of the empire under the Hapsburg dynasty, with certain interests in common but autonomous as to internal affairs. In the Hungarian kingdom are included, in addition to Hungaria proper, Transylvania, Croatia, and Slavonia. Under the terms of the constitution, Hungary agreed to assume one-third of the national debt accumulated up to 1868, paying on this account an annual contribution of more than 30,000,000 florins, the total of funded obligations in 1895 exceeding 6,000,000,000 florins, besides a large floating indebtedness. There are three separate budgets; first for the entire monarchy, second for Austria proper, and third for Hungary; the cost of general administration being borne in proportions determined by the representative bodies and approved by the emperor. For the common affairs of the monarchy the estimates for 1895 amounted to 152,000,000 florins, of which nearly all was appropriated to the military and naval departments; of Austria the total revenue was about 625,000,000, with a somewhat smaller expenditure, and for Hungary the figures were a little more than two-thirds of this amount. With a frontier exceeding 5,000 miles, for the most part in the very heart of Europe, Austria has an extensive system of fortifications, her arsenals at Pola, Trieste, and elsewhere containing an immense supply of the enginery and materials of war. On a peace footing the nominal strength of the army is 355,000, and on a war footing 1,830,000, with nearly 2,000 guns apart from fortress artillery,—an enormous armament, in truth; but Prussia has more, and Russia twice as many. The navy, chiefly for coast defense, consists of about 120 vessels, nearly half of which are cruisers or battleships. If as a military and naval power Austria ranks below other European nations, none have made greater sacrifices to improve the efficiency of all branches of an army and navy which were probably never so formidable as at the present day.

That the prestige of Austria had not been dimmed by misfortune was shown at the Vienna Exposition of 1873, the fifth, and so far the greatest of the series of international displays held in Europe since 1851. By nearly all the civilized countries of the world commissions were appointed for the occasion, and never before were assembled in the Austrian capital so many gifted and eminent men. Among the visitors and commissioners royalty was freely represented, the presence of the emperor and empress of Germany, the tzar of Russia, the king of Italy, and the prince of Wales, affording tokens of the good will of European nations.

The fair was held in the Prater, or park, on the eastern side of the city, formerly the hunting-ground of the imperial family, and in 1766 presented to the people by the emperor Joseph II. A wide expanse of lawn and woodland, more than 4,000 acres in extent, between the river Danube and the Danube Canal, the Prater is the favorite resort of rich and poor alike; and there may be studied all phases of Viennese society, from the rich costumes and equipages of the Haupt-Allee, with its ample border of stately chestnut trees, to the boisterous gaiety of the people's Prater, where all may find diversions suited to their tastes. Of the Exposition buildings several have been preserved, its art gallery and spacious rotunda being used for concerts and exhibitions. Elsewhere in the suburbs are many popular resorts, especially the gardens and grounds of the palaces of Schonbrunn and Laxenburg, with their marble statues, fountains, vases, and choice collections of exotic plants. The chateau of Schonbrunn, originally an imperial hunting lodge, was completed by Maria Theresa, and there Napoleon established his headquarters when after Austerlitz and Wagram the capital lay at his mercy.

In historic associations few cities are richer than Vienna, and none have attained to greater prosperity in the face of repeated disasters. Founded in the first decade of the Christian era as a Roman fortress under the name of Vindobona, on the site of a still more ancient Celtic settlement, it was long the northern bulwark of the vast empire of the Caesars, whose title was afterward assumed by the Kaisers of Germany. Here in 180 Marcus Aurelius ended his days, and a century later Vindobona ranked as a municipal town, the seat of government both civil and military until the decline of the empire left it a prey to successive hordes of barbarians. After being plundered and occupied by the Huns under Attila, it passed into the possession of the Avars, and thenceforth has no place in history until Charlemagne expelled the intruders and established there one of the boundaries of his empire. The traffic incidental to the crusades again brought Vienna into prominence, so that when it became the capital of the Hapsburgs it filled the entire area of what is now termed the inner city, with its encompassing fortifications, removed by decree of 1858, and now replaced in part by the Ringstrasse, one of the most spacious of Viennese boulevards. Thenceforth it shared the changing fortunes of Austria, gradually rising into power and splendor, though several times beleaguered by Turks and Frenchmen, whose depredations retarded its growth.

Unlike most European capitals, the inner town of Vienna is the aristocratic quarter; the palaces of the emperor and of the wealthy and noble are there, together with the government offices and the headquarters of embassies and legations. Yet most of the streets are narrow, their scant proportions emphasized by the lofty many-storied edifices built by speculators and rented in quartiers to families.

Almost in the center is the Stefanskirche, or cathedral church of St. Stephen, an imposing specimen of mediaeval architecture, belonging in its present form chiefly to the fourteenth and fifteenth centuries but, with remnants of the original edifice consecrated in 1147 and soon afterward destroyed by fire. It is built of limestone in the form of a Latin cross 335 feet in length and surmounted by a modern tower

450 feet in height, its richly groined ceiling supported by massive pillars adorned with statuettes. Among its altars is that which commemorates the escape of the present emperor from assassination in 1853, an altar-piece of black marble representing the martyrdom of St. Stephen. In the burial vaults were formerly interred the sovereigns of the house of Hapsburg, now buried beneath the church of the Capuchins. The sarcophagus of Frederick III is an elaborate structure in red and white marble encircled by coats-of-arms, and in the Liechtenstein chapel is the tomb of Prince Eugene of Savoy. Of the stained-glass windows several are from designs by Fuhric, and in the vestibule of the chapel of St. Catherine are portraits of Austrian dukes and monarchs. Among other ancient ecclesiastical buildings within the line of the old fortifications is the Gothic Augustine church founded in 1330, at the entrance of which is Canova's beautiful monument of Maria Christina.

South of the cathedral is the Hofburg, or Burg as it is commonly termed, almost from time immemorial the abode of the Hapsburg sovereigns. It is a complex and irregular series of buildings in various styles of architecture, dating from various periods and with little regard to uniformity of plan, the oldest portions belonging to thirteenth and the latest to seventeenth century designs, though completed only within the present decade. In the several courts are bronze statues of the emperors, Francis I appearing in the robes of the order of the Golden Fleece surrounded by symbolical figures, and Joseph II on horseback, with reliefs representing the leading incidents in his career, while in an open space near by the archduke Charles on prancing steed is waving aloft a flag, the only one probably captured from the French at his much vaunted victory of Aspern.

First among the many collections of the Hofburg may be mentioned the Imperial library, containing nearly 500,000 volumes and many thousands of manuscripts, including the rarest of oriental documents. Out of 7,000 or more incunabula, a psalter of 1457 and a copy of the Biblia Pauperum of the edition of 1430 belong in truth to the cradle of the art of printing. There are fragments of the gospels and of the book of Genesis, bound in purple parchment and with gold and silver lettering of the sixth century; there is one of the earliest manuscript copies of Tristan, and beautifully executed with marginal illustrations, is a fourteenth century edition of the Divina Comedia of Dante. In connection with the library, and founded by Prince Eugene, is a collection of 350,000 engravings and wood-cuts, illustrating the progress of these arts from their inception until the present day.

In the treasury is one of the most interesting and valuable historic collections in the world, beginning in the entrance chamber with the standard of Austria, the shield of the grand marshal, and the rich embroidery of heraldic robes. Within are specimens of the goldsmith's, silversmith's and lapidary's arts from the fourteenth century downward, including a richly decorated crystal goblet, once the property of Charles the Bold, with jewelry and precious stones, ornaments in gold, silver, and gems, vases, goblets, dishes, tankards, drinking-cups, and articles of almost every shape and use into which the precious metals have been fashioned.

Of enormous value are the imperial gems and jewelry, the crowns and coronation robes of the emperor and empress, and the regalia pertaining to the royal family. Among the decorations of various orders is that of the Golden Fleece, in the center of which is a large diamond solitaire surrounded by 150 brilliants, the grand cross of the order of Maria Theresa containing 550 brilliants and a center stone of 26 carats. There are the insignia worn by Napoleon when assuming the crown of the Lombard kings, and the silver cradle of the king of Rome nearly 600 pounds in weight; there are the sword and scepter of Charlemagne, the saber of Haroun-al-Raschid, and historic curiosities

gathered during the reign of a dynasty extending in unbroken succession from the close of the thirteenth to the closing years of the nineteenth century. But more precious than all the rest is the famous Florentine diamond, 130 carats in weight, and valued at $300,000. Originally belonging to Charles the Bold, it is said to have been picked up on the battlefield of Morat by a peasant, who sold it for a single florin, later passing into the possession of the grand duke of Tuscany.

In the cabinet of coins and antiquities are some 200,000 specimens of the former, the contributions of emperors and nobles, with collections of ancient Italian and other historic medals. Of the Greek and Etruscan vases, the finest are of fourth and fifth century workmanship; and in the gallery of bronzes are many classical subjects, together with a tablet on which is inscribed a decree of the Roman senate bearing date AUC 567; that is to say nearly two centuries before the Christian era. There is an entire chamber filled with works of art in gold, with cut stones, cameos, and intaglios, with ornaments, trinkets, and other objects. Among them are a head of Medusa in onyx and a cameo representing Augustus enthroned as Jupiter, with other figures of emperors, gods, and demigods. There are necklaces from Herculaneum, and golden vessels of Etruscan and Roman workmanship; there are ivory and marble tablets, busts and statuettes; there is the celebrated, Timoni collection of gems; and fashioned of shells on which are the portraits of Austrian sovereigns is a necklace of the order of the Golden Fleece.

From the Hofburg the Hofgarten and Volksgarten extend to the Ringstrasse, around which center many of the spacious and handsome buildings of modern Vienna. On either side of a stately monument of Maria Theresa are the imperial museums of art and natural history, two counterpart structures of the renaissance order, the dome of the latter covered with a mammoth pictorial canvas by Hans Makart. Surmounting them are colossal statues of Apollo and Athena, and on the cornices are figures of prominent artists and naturalists. The Austrian museum of art and industry was founded for the promotion of the industrial arts, and is well stocked with specimens of goldsmith's work, of ceramics and glassware, of furniture, tapestries, and carvings belonging to many eras and nationalities.

Adjacent to the imperial museums is the palace of justice in the style of the German renaissance, and with a colossal marble statue in the center of its spacious hall. Near at hand are the houses of parliament, in which Grecian models have been skillfully adapted to modern architectural requirements. The porticos are formed of monolithic marble columns and on their friezes are represented some of the principal events in the annals of the empire. Both chambers are profusely adorned with statuary and at the corners of each are bronze, quadrigæ, other points of emphasis adding to the effect this graceful and imposing composition. A colossal and richly decorated structure of Gothic design is the neighboring rathhaus, with its seven interior courts, completed in 1883 at a cost of 15,000,000 florins. The central tower, 330 feet in height, is surmounted with a gracefully tapering spire capped with a colossal figure of a German knight.

Especially handsome are the main staircases with their marble pillars and gilded balustrades, the frescoed council chamber, and the lofty reception hall, in which are statues of the former burgomasters of Vienna. On the first floor is the municipal library, and in the municipal collection of arms and armor are entire suits of mail-clad warriors, many of them finely chased, with shields and escutcheons swords, and daggers, spears and pikes, muskets, arquebuses, and other weapons of the

mediaeval ages. Of the wars of Austria there are also many things to remind us, including flags and other trophies captured from the Turks during their sieges of Vienna.

Opposite the rathhaus is the court theater, and not far away the Imperial opera house, both of them handsome renaissance edifices rich in columnar and other decorations. In interior embellishments the latter is second only to the grand opera house at Paris, and though less stately as to proportions has in its finely gilded and painted interior seating accommodation for 2,300 spectators. In front of the boxes are medallions of the leading members of the company for the last century or more; in the foyer are the busts of celebrated composers, and on the stairway marble statues representing the liberal arts. In the Schillerplatz, close at hand, is Schilling's bronze statue of the poet after whom the plaza is named, with figures typical of the four ages at the corners of the pedestal, and at the sides those of genius, poetry, science, and love. In this connection may be mentioned, among the many sculptural decorations of Viennese avenues and squares, the rostral marble column erected in memory of Wilhelm Tegetthoff, the equestrian statue of Prince Schwartzenburg, and the monument to Beethoven by Zumbusch, on one side of which is Prometheus vinctus and on the other Victory holding aloft a laurel wreath.

In art collections, whether public or private, Vienna does not suffer by comparison with any of the great European capitals. The Academy of Art, founded in 1692 by Leopold I and for which the present building on the Schillerplatz was completed in 1876, is still another of the richly decorated renaissance buildings characteristic of Viennese architecture, the outer facades of its upper stories decorated with imitations of ancient sculpture and with allegorical figures on a ground of gold. In the aula are more copies of statuary, ancient, mediaeval, and modern, nearly 2,000 in number, interspersed with original studies by modern sculptors. In the picture galleries all the principal schools of painting are freely represented, and especially that of the Netherlands, as Van der Meer, Ruysdael, and Rubens, whose 'Graces' here exhibit their voluptuous charms with all the sensuousness pertaining to Rubens' style. The largest and most valuable portion of the collection was contributed by Count Lamberg, in 1812, and to this a smaller one was added by the emperor Ferdinand. While there is the usual leaven of mediocrity, there are to be found in these galleries such works as Titian's 'Cupid,' 'The Annunciation' by Paul Veronese, Rembrandt's 'Dutch Girl', Van Dyck's 'Souls in Purgatory, and Teniers' 'Five Senses' and 'Witches Sabbath,' with landscape and other compositions by men of world-wide repute. In the remaining galleries are the art library, and more than 100,000 water-colors, drawings, and engravings.

Foremost among private collections is the Aibertina, in the palace of the archduke Albert, where the display of drawings and engravings is the largest and most valuable in the world. Of the former there are nearly 120,000, including several hundreds of sketches by Raphael, Rembrandt, Rubens, and Durer. In the engravings, which number twice as many, the old masters are freely represented, and in a library of 50,000 volumes, with 24,000 maps and plans, are many finely illustrated works.

The collections of the Belvedere palace, formerly the residence of Prince Eugene, surpass in value even those of the Academy, and are especially rich in the canvases of Rubens and Durer, though with Venetian, early Italian, and Spanish masterpieces. No less remarkable is its collection of antiquities and curiosities, including ancient armor, sacerdotal vestments, and works of art and art manufacture in ivory, bronze, and marble. In one of the chambers are jewelry, gems, and the most fanciful of bijouterie; goldsmiths' work, ebony and other cabinets richly mounted in silver articles fashioned in

agate and jasper, and weapons with beautifully chased and enameled hilts. The most extensive of many private galleries is contained in the former mansion of Prince Liechenstein, where are several hundred works of superior merit, and several thousand which cannot so be classed. Choicer and more compact assortments are those in the palaces of Czernin and Harrach, the latter a seventeenth century structure, not far from which is the Schonbrunn palace and gallery.

Of the Imperial and Austrian museums I have already spoken, and of others it need only here be said that they are fully in keeping with the purpose for which they were founded. One of the most interesting among them is the museum of weapons in connection with the arsenal, an extensive group of buildings in which are represented all the handicraft and enginery of war. In the vestibule of the museum are some fifty marble statues of Austrian heroes supported by massive compound pillars, and the stairway is decorated with allegorical frescos and with a marble group representing Austria guarding her children. In the hall of fame are represented in sculptural and pictorial art scenes in the military annals. Elsewhere is an extensive and of the empire, with captured standards, flags, and other trophies of conquest, most interesting collection of historic weapons and armor from the twelfth to the nineteenth century, including the sword and helmet of Charles V, the steel collar, riddled with bullet-holes, which Gustavus Adolphus wore at the battle of Lutzen the saber of the archduke Charles, and the armored suits of emperors and nobles such as were worn at tournaments and on the field of battle.

At the head of the educational system of Austria is the University of Vienna, founded in 1365, reorganized during the reign of Maria Theresa, and now with a European reputation, especially for its medical faculty. There are several hundred professors, and an average attendance of 5,000 or 6,000 students; in connection with it are an observatory and a library of 350,000 volumes, all of them housed, together with the pathological museum, the chemical laboratory, and other departments, in a quadrangular building of the Tuscan renaissance, almost as large as the rathhaus, but less imposing in effect. In the Maximilianplatz, not far from the university grounds, is the votive church which commemorates the present emperor s escape from assassination during the outbreak of 1853. It is a beautiful Gothic structure, its elaborate facade richly adorned with statuary and surmounted with slender, open towers 350 feet in height. The interior embellishments are in excellent taste, and especially the stained-glass windows, all of which are in the most finished style of decorative art.

Among other imposing structures on the Ringstrasse is the exchange, a rectangular group of buildings 300 feet in length and 325 in depth, erected at a cost of 5,000,000 florins. It is a solid, massive businesslike edifice of the renaissance order, but with lavish decoration of its stately facade in marble and terracotta, the portico containing five arches flanked with double rows of columns. The vestibule and main hall are spacious and handsome, and in one of the chambers is an extensive collection of oriental products.

In the heart of Vienna are several breathing-grounds, in addition to the Volksgarten and Hofgarten, the former containing a temple of Theseus with Canova's marble group, and the latter an equestrian statue of Francis I. From the center of the Hof, the largest public square of the inner city, where stood the ancient castle of Babenburg dukes and margraves, rises the stately column of St. Mary, erected by Leopold I in 1664. Fronting on the platz are the war office, the civic arsenal, and the handsome quarters of the Credit-Anstalt. The Freyung has a handsome fountain and a column encircled with oak-wreaths supporting a figure of Austria. The Stadtpark, with its shaded walks, its gardens,

fountains, and playgrounds, is one of the many favorite resorts in the neighborhood of the spacious Ringstrasse, two miles in length and 160 feet in width, extending from the Aspern Bridge to the extremity of the Schottenring, and with the Franz-Josefs quai completely encircling the inner city. The Elisabethbrucke, across the Wien, is one of the finest of Viennese bridges, 90 feet wide and with parapets adorned with marble statuary. The Augartenbrucke, the Sofienbrucke, and others span the Danube Canal, the latter leading toward the Prater.

In the outer districts of Vienna are many handsome buildings both public and private, first among which may be mentioned the Karlskirche, with its lofty dome, erected in the reign of Charles VI to commemorate the cessation of the plague which early in the eighteenth century carried death into thousands of households. On the tympanum above its chaste Corinthian portico are portrayed in relief the effects of the pestilence, and on either side is a tall pillar embellished with reliefs, the effect of which is somewhat marred by the surmounting campanile.

The Altlerchenfeld church is a fine edifice of mediaeval architecture, with towers and an octagonal dome. The church of St. John is handsomely decorated with frescos, and in the atrium of the Jewish synagogue, in Moorish style, are fine specimens of mosaic work. Among the various hospitals the largest is the Rudolf, with accommodation for nearly 1,000 patients, and there is a hospital for pensioners in which, as at the English Greenwich hospital, are paintings of historic battlefields.

In addition to those already mentioned there are many imposing mansions and palaces, where dwell the noble and wealthy, both in the inner city and the districts beyond. On the Schwarzenbergplatz is the palace of Ludwig Victor, with stately facade in the style of the Italian renaissance, the summer palace of the Schwarzenberg princes lying beyond the bridge which crosses the Wien toward Landstrasse. Archduke William's palace is a modern building with an Ionic portico, above which are trophies and statuary. In the palace of the duke of Coburg, with its spacious balcony, are also columns of the Ionic and Corinthian orders. The Metternich palace and the palaces of the duke of Nassau and the German and British embassies are in the old Metternich Park, now covered with handsome streets and structures. The quarter southeast of the Karlskirche has also been recently covered with costly edifices, among which are the palaces of the Rothschilds and of the grand-duke of Tuscany. In the Josefstadt is the magnificent chateau of Prince Auersperg, and near the Schottenring are those of Prince Dietrichstein and Count Chotek. Among other historic mansions are those of Prince Lobkowitz, now occupied by the French embassy, of Montenuovo where is the Anglo-Austrian bank, and of Sina, near which stood, as is said, the Roman praetorium, for though restored and decorated, this is a portion of the oldest house in Vienna.

Thus it will be seen that like Rome, in the days of Augustus, Vienna is a city of palaces, though around some of them are thickly clustered the squalid habitations of the poor, while in close proximity to others, or forming part of them, are factories, shops, and marketplaces. If as a commercial and industrial metropolis it ranks below other European centers, there is nevertheless a considerable volume of trade and manufactures, both steadily if slowly increasing. But this cosmopolitan and heterogeneous community of Germans and Hungarians Slavs and Czechs, with endless race intermixture, is rather a pleasure than a business loving people, gay, genial, lighthearted, and in striking contrast with the inhabitants of the northern capital. Yet they are a frugal, sober, and fairly industrious folk, excelling in many of the useful arts, while in the fine arts they can point to such masters as Hans Makart, and to such musicians as Beethoven, Mozart, Haydn, and Schubert.

Prague ranks second in population among the cities of the empire, though its 200,000 inhabitants are little more than one-eighth of the number contained in the Austrian metropolis. Founded probably in the opening years of the eighth century, it had become in the thirteenth century the one of the principal cities of Germany, seat of a brilliant court, as appears at the coronation of Vasclav II on which occasion, if we may believe a German chronicler, "such a festival was held as had never been celebrated, neither by a king of Assyna nor by Solomon himself."

There were present 30 princes and 7,000 knights, while the town was not large enough to accommodate the crowds of visitors; so that an immense pavilion richly decorated with tapestry was erected on the plain adjacent, where guests of high degree were entertained with lavish hospitality. The crown used at the coronation, the sword and buckler, the mantle and other appurtenances of royalty were worth many thousands of marks, and never before had such splendor been witnessed in the capital of Bohemia. Except during the Hussite wars it continued to prosper in the main, though several times besieged, and especially during the Thirty Years' war suffering its full share of tribulation; for it was there that the great contest originated through the hurling of the imperial councilors from the windows of the castle of Hradschin.

From the castle hill rises the imperial palace, an enormous cluster of buildings containing 450 rooms; but of historic rather than architectural interest, founded probably by the princess Libussa, and enlarged by Charles IV and his successors. In the palace court is the cathedral of St. Vitus, a fourteenth century structure, with modern additions originally in the form of a spacious Gothic choir surmounted with a tower 520 feet in height, since partially destroyed by fire. In the nave is a marble and alabaster "monument of the kings," beneath which are the tombs of former Bohemian monarchs and members of the royal family. The Wenzel chapel is decorated with ancient frescos and precious stones, the former partially obliterated; the walls of the St. Wenceslaus chapel are overlaid with jasper amethyst and chalcedony; there are several altars adorned with marble statuary; and there is a shrine of solid silver containing more than 40,000 ounces of metal. On the highest point of the hill is the imposing and richly endowed abbey of Strahow, containing an excellent library and picture gallery. Among other palaces in the neighborhood is that of the archbishop, and in the imperial gardens toward the north is the Belvedere villa, erected by Ferdinand I in the style of the Italian renaissance, its spacious hall adorned with frescos descriptive of Bohemian annals.

In the Neustadt, or new town, the site of the fortifications which formerly divided it from the old quarter is now surrounded with handsome streets and squares containing many of the public buildings, and especially the numerous hospitals and other benevolent institutions that betoken the charity of the citizens.

Here is the rathhaus, erected on the site of a fourteenth century building, of which only the tower and council-chamber now remain. Near it is an extensive block of buildings known as the Collegium Clementinum, including churches, chapels, educational institutions, an observatory, and an art-gallery. The Bohemian museum has a valuable library containing Hussite and other manuscripts, with ethnographic, numismatic, and botanical collections contributed chiefly by Count Sternberg. There are also carvings in ivory and wood, bronzes, goblets, and historic weapons, among them the sword of Gustavus Adolphus and that with which the protestant leaders were beheaded after the battle of White Hill. The Bohemian theater, partially destroyed by fire in 1881, was restored and enlarged at a total cost of nearly $1,000,000. Of churches the most imposing are the Carlshof, a masterpiece of

fourteenth century Gothic architecture, and the Emaus, also a Gothic structure, recently restored and with frescoed transept representing subjects from the Biblia Pauperum.

The Altstad, or old town, is the principal trading quarter, thickly peopled and with narrow, tortuous streets, though lining the river Moldau are spacious quays adorned with the bronze statues of Charles IV and Francis I. Here also is a Jewish settlement, probably the most ancient in Europe, thickly clustered amid a labyrinth of dingy and crowded alleys, almost in the center of which is the still more crowded cemetery. Around the platz known as the Grosser Ring are several historic buildings, and near it is the University of Prague, the oldest in the empire, founded by Charles IV in 1348, and attended by many thousands of students from every part of Europe, until distinctions made against foreigners drove them to other seats of learning. It has still a wide reputation and a large attendance lectures, being delivered and degrees conferred both in German and Bohemian. Its schools where of philosophy and theology are conducted in the Collegium Clementinum, also is housed its library of 200,000 volumes, rich in Bohemian literature. On the quay adjacent is the Rudolfinum, a handsome renaissance edifice in which are picture galleries, a conservatory of music, and an industrial museum. The Teynkirche, formerly the church of the Hussites, with its high-pitched roof and pointed towers, is one of the many buildings of historic interest, as also is the palace of Count Clam-Gallas, completed in 1712, and one of the most finished specimens of the architectural era to which it belongs.

Many bridges lead to the aristocratic and official quarter of the Kleinseite, beyond the broad stream of the Moldau, here from 1,200 to 1,500 feet in width. Among them are Kaiser-Franzbrucke, a suspension bridge spanning the Schutzen Island and the Karlsbrucke with its 16 arches and its ancient towers of defense, begun in 1357 and a century and a half in the building.

On the buttresses of the bridge are many statues of saints, and a slab of marble near the statue of St. John Nepomuc marks the spot where, as tradition relates, the patron saint of Bohemia was hurled from the bridge for refusing to betray to the emperor Wenzel what his wife had revealed in the confessional. The Karlsbrucke leads to the ring around which cluster the principal buildings of the Kleinseite, or little Prague. In the center of the ring is the Radetzky monument reared by the Bohemian art union, the marshal with baton and flag standing on a shield upheld by soldiers, the figures being composed of the gun-metal of Piedmontese cannon. Fronting on the ring is the Jesuit church of St. Nicholas with its handsome decorations in marble and gilding. In the Waldsteinplatz nearby is the Wallenstein palace, the most interesting of the many mansions of the Bohemian noblesse; for Wallenstein was the central figure of the Thirty Years' war. Still in the possession of the family, it is a spacious edifice its ancient hall, since, restored, containing the grotesque caryatides with which it was embellished when first constructed in 1623, while in the chapel adjoining are paintings by Durer, Guido, and other artists of renown, and in an open gallery facing the garden a mounted figure of the horse which Wallenstein rode at the battle of Lutzen. Beyond is the Hradschin, the Capitoline hill of Prague, the principal features of which have already been described.

Trieste, the only important seaport of the Austro- Hungarian Empire, was originally a Roman colony founded under the name of Tergeste during the reign of Vespasian. After acknowledging a succession of rulers it was captured by the Venetians early in the thirteenth century, and near the close of the following century placed itself under the protection of Austria, later becoming and remaining an integral portion of its dominions, except for brief periods during the Napoleonic wars. It is beautifully situated on the crescent-shaped bay opening into the gulf which bears its name, the old town with its

steep and narrow streets clustering around the base and slopes of a hill crowned with a seventeenth century castle erected on the site of an ancient Roman capitol. Near it, amid the ruins of a Roman temple, is the cathedral of St. Giusto, a plain, mediaeval structure formed by the combination of several contiguous edifices, among which were a Byzantine church and an early Christian basilica. Here is the burial place of Winckelmann the archaeologist, of Don Carlos of Spain, and of Fouche, Napoleon's minister of police.

The Corso, a handsome and spacious thoroughfare, leads to the new town skirting the bay and built partly on ground reclaimed from its waters. The Jesuit and Greek churches are among its finest buildings, the latter an elegant specimen of Byzantine architecture, and with rich interior decorations. The Palazzo Revoltella, in front of which is a monument to the emperor Maximilian of Mexico, was erected and adorned with paintings and statuary by a baron of that name, who also bequeathed a large sum for its maintenance and preservation. Almost in the suburbs of the city is the chateau of Miramar, the former residence of Maximilian, richly furnished and surrounded with a beautiful park.

As a seaport Trieste has long outstripped its ancient rival Venice, with exports and imports amounting probably to $200,000,000 a year and as the, headquarters of the Austrian Lloyd s company, having steam communication with all the principal Mediterranean and Black Sea ports.

Lemberg, the capital of Galicia, is a city of churches and colleges, apart from which it contains little of interest. There are several cathedrals and several score of churches, chapels and convents of all denominations, most of them belonging to the sixteenth and seventeenth centuries, when Lemberg was the ecclesiastical center of Germany. Its university, founded by Joseph II in 1784, has a library of 75,000 volumes, with an extensive collection of specimens in natural history; and in the National institute, established by Ossolinski, is a larger and more valuable library, with manuscripts, portraits, coins, and antiquities, relating chiefly to Polish history and literature. The town ranks third in population among Austrian cities, and has a moderate volume of commerce and manufactures.

Gratz, the capital of Styria, on the river Mur, or L'Amour as the French call it, alluding in jest to the beauty of its site, is a favorite resort for retired officers and others of limited means; for this is one of the least expensive as well as one of the most delightful of Austrian towns. Almost in the center and surrounded, with modern and spacious thoroughfares lined with handsome residences, is the Stadtpark, neatly laid out and adorned with fountains and statuary. Towering above the city is the Schlossberg, whose fifteenth century fortifications, built for protection against the Turks, were destroyed by one of Napoleon's marshals. There are many churches, chief among which is the Gothic cathedral founded by Frederick III in 1450, and with numerous alterations and additions, especially its tall copper spire and its tasteful interior decorations, including costly shrines and stained-glass windows, for the most part of modern date. In the Landhaus, where the estates hold session, is the huge silver goblet known as the Landschadenbund, a masterpiece of the goldsmith's art. Among the several palaces are those of Count Attem, with a fine art collection, and of the archduke John, whose dilatory movements lost to the Austrians the battle of Wagram. By the latter was founded the Joanneum, for the promotion of scientific education, and now the property of the state.

The ancient town of Brunn, not far from which is the battlefield of Austerlitz, is indebted to Joseph II for its spacious public gardens and park of the Augarten. Its rathhaus is famous for its Gothic portal and its valuable antiquities. Of ecclesiastical structures the most remarkable is the Gothic cathedral of St. Peter and St. Paul, with its lofty vaulted ceiling, built in the fifteenth century, destroyed by the

Swiss in the seventeenth, and later restored in somewhat doubtful taste. The church of St. James is a massive and well-proportioned structure, with stained-glass windows of artistic design, and a unique collection of early typography. Worthy of note also are the stately Jewish synagogue and the mediaeval convent of the Augustine friars. In the Spielberg citadel, near the hill of that name, was the prison in which Baron Trenck ended his days, and where Silvio Pellico passed the long years of his captivity in writing the Prigioni. As the capital of the Austrian margravate of Moravia, Brunn is a place of some importance, containing also a large number of educational and charitable institutions, and factories for the production of woolen silk cotton and other fabrics.

Of all European capitals perhaps none have suffered more vicissitudes than the city of Cracow, where until 1764 were crowned the kings of Poland. Capture first by the Bohemians near the middle of the eleventh century, and then in turn by the Mongols, the Swedes, the Russians, Austrians, and French, it was declared in the treaty of Vienna which settled the affairs of Europe in 1815 that Cracow, with its adjacent territory, should be forever "a free, independent, and strictly neutral city" under the protection of Russia, Austria, and Prussia. Thus it continued until the insurrection of 1846, the result as it seemed of a widely spread conspiracy, when at the request of the authorities the town was occupied by Austrian troops, and a few months later this miniature republic disappeared from the map of Europe.

Still in the old town stands on the rock of Wawel, the ancient castle of the Polish kings, founded in the fourteenth century by Casimir the Great, and now serving for barrack and hospital purposes, it is a huge and irregular pile, erected by various monarchs in different orders and no orders of architecture, though most of the buildings now in use are of modern date.

For a population of less than 80,000 there are in Cracow more than threescore churches and convents, first among which is the Schlosskirche, or as it is usually named the Stanislaus cathedral. This also was built during the reign of Casimir, on ground adjacent to his castle, and there for many cycles took place the ceremony ofcCrowning the sovereigns of Poland. Here also are the mausolea of the Sigismunds, of Sobieski, Poniatowski, Kosciusko and other Polish patriots, warriors, and kings, while in a silver sarcophagus upheld by silver cherubim are preserved the remains of St. Stanislaus, the patron saint of the Poles. In several of the chapels are the finest of Thorwaldsen’s statues and in the treasury are the jewelry and gems of former monarchs, gold and silver vessels of the church and the richest of sacerdotal vestments. The university of Cracow is still another of Casimir's creations, though not completed until many years after his death. In its several departments are about 130 professors and 1,200 students, its library of 170,000 volumes containing a large number of manuscripts. In connection with it are botanic gardens, an observatory, and archaeological and medical museums. In the Czartoryski museum is a large collection of antique bronzes, gold and silver ornaments, carvings in ivory, porcelains and faience, the picture gallery containing works by such artists as Raphael, Leonardo da Vinci, Rembrandt, and Van Dyck. In the Tuchhaus, or cloth-hall, is another picture-gallery, somewhat out of place amid the Gothic booths of the Ringplatz, where also are the remains of the ancient rathhaus with its mediaeval tower.

In 1873 the Hungarian city of Pesth was incorporated with the town of Ofen, or as in the Hungarian. Buda, on the opposite side of the Danube under the name of Buda-Pesth, forming together the present capital of Hungary and the seat of the imperial diet. Pesth was an ancient Roman settlement, in the middle ages a place of importance, and though later falling into decay, now ranking next to

Vienna as a commercial center. Within recent years Pesth, like Paris, has been almost reconstructed, a number of spacious ringstrassen encircling the metropolis, where are now many handsome structures, especially those which extend in almost unbroken array along the left bank of the river.

First may be mentioned the academy, a modern structure in the style of the renaissance, its vestibule adorned with a handsome marble colonnade, and with the portraits of distinguished members. The reception room is the finest of its many apartments, with a gallery supported by pillars of red marble, and a vaulted ceiling beneath which are rows of Caryatides. Founded for the promotion of literature science and art it has, a library of 120,000 volumes and contains on two of its floors the national picture galleries, in which is the famous collection of Prince Eszterhazy, purchased by the state for 1,300,000 florins. There are also 2,000 or 3,000 drawings, and at least 60,000 engravings. The National museum has a mediocre collection of works of art and a choice collection of antiquities, including coins and historic weapons, among them the saber of Peter the Great, with mediaeval goblets, dishes, and trinkets of gold and silver and among other curiosities the table-service of Frederick the Great captured on the field of Kolin. There are also collections in ethnology and natural history, gathered chiefly in eastern Asia for the Hungarian government, and a library of nearly 200,000 volumes and 15,000 manuscripts. Still another large library is that of the university, in which are the usual departments, with a liberal attendance of students and staff of professors.

A suspension bridge, 1,260 feet long, 40 in width, and supported by pillars 150 feet in height, connects Pesth with its sister town of Buda, a tunnel extending thence through the castle hill, where have stood in succession Roman mediaeval and modern fortresses, and around which still clusters the ancient quarter of the city. Yet standing on this oblong rock of porphyry, resembling the Acropolis of Athens, is the massive chateau of King Bela IV, founded in 1247 and the residence of Hungarian monarchs until in 1541 it was captured by Sultan Soliman, who found here accommodation sufficient for a garrison of 12,000 janizaries. Above the figure of an angel in the act of bestowing the wreath of victory on a dying hero rises the monument erected to General Hentzi, who in 1849 laid down his life in defense of the citadel. Nearby are the arsenal, the residence of the governor, the quarters of officials, and the mansions of several Hungarian nobles. Here also is the abode of royalty, in the palace erected by Maria Theresa, partially destroyed during the tumults of 1849 and now restored on a larger and more magnificent scale, with 203 apartments.

In the throne-room is opened the Hungarian diet, and in one of the chambers are the crown of St. Stephen and the scepter sword and coronation robes of the kings, with the rich and costly regalia of the court.

Around the central portion of the city have arisen various suburbs, in one of which is the Matthiaskirche, also attributed to Bela IV and of Romanesque architecture, but now almost a modern structure in which the original features have been mainly preserved. Here were crowned in 1867 the reigning sovereigns of the house of Hapsburg. Francis Joseph and his consort Elizabeth. In the Wasserstadt suburb is the handsome church of St. Anne, and elsewhere are many others; in the Christinenstadt are the palace of Count Caracsonyi, the summer theater, and the Horvath gardens. Educational and charitable institutions are plentiful in Buda, which is also famous for its mineral baths, supplied from chalybeate and sulfur springs. There are several prosperous branches of manufacture, and trade is active, especially the river traffic, for the Danube Steam Navigation company has here a large establishment.

Miscellany

In addition to Viennese buildings described in the text, the following may briefly be mentioned. In the Michaelerplatz is the church of St. Michael, founded in 1221, with rich fourteenth century Gothic choir, and adorned with ancient monuments and modern paintings. Restored and altered late in the seventeenth century St. Michael's has become one of the most fashionable churches in Vienna. The Capuchin church contains the imperial vault, where are the richly decorated sarcophagi of Austrian monarchs from Maria Theresa to Ferdinand I. The Maltese church is attended chiefly by Hungarians; the church of St. Anna by the French, and there is a Greek church with Byzantine facade frescoed by Raid on a ground of gold and with costly interior decorations. For Bohemians the ancient Gothic church of Maria-Stiegen is a favorite place of worship. It is in the finest style of Gothic art, with handsome altars and stained-glass windows, its heptagonal tower, nearly 200 feet in height, terminating in an open dome of beautiful workmanship. In the Minorite church, frequented by Italians, is Raffaelle's splendid mosaic copy of Leonardo da Vinci's 'Last Supper.' It was nine years in execution, and was purchased by Napoleon for 400,000 florins.

Prince Nicholas Esterhazy, Vienna, had 21 castles and 500 villages; he died January 28, 1894, aged 77.

The emperor of Austria has an opal weighing 17 oz. and valued at §250,000.

Austria produces 110,000 tons of hemp annually.

Among secular buildings one of the most tasteful is the chamber of the minister of finance, erected in 1703, and originally occupied as the palace of Prince Eugene. Near it are the quarters of the Teutonic order in a chapel profusely decorated with banners, monuments and coats-of-arms. The, old rathhaus most of it built about the middle of the fifteenth century, when it was one of the finest buildings in the city, is rented out in apartments, its court containing a fountain with Donner's group of 'Perseus and Andromeda.' Adjoining the Harrach palace is that of Prince Kinsky with its elaborately decorated facade of early eighteenth century architecture. The Musikvereinsgebaude is a modern building with a valuable collection of medals, busts, portraits, and instruments, its principal concert chamber embellished with Eisenmenger’s ceiling-paintings of Apollo and the muses.

The crown of jewels of Austria are excelled by none. In the hilt of the sword of the first emperor of Germany are enormous sapphires; among the emeralds of the empress is one as large as an orange; her watch case consists of a single emerald, and it hangs from a chatelaine of emeralds and diamonds. Her toilet chamber is ablaze with jewels. In the treasure chamber is the regalia, brought from Aix-la-Chapelle, of Charlemagne, formerly used at the coronation of German emperors; also a diamond of over 135 carats, which belonged to Charles the Bold. Also the largest uncut emerald in the world, weighing 2,981 carats; and so on.

Vienna is well supplied with public baths, including among others the Kaiserbad and the Dianabad, in both of which are large swimming-baths converted into ballrooms in winter. But the principal swimming-baths are in connection with the Stadtische Badeanstalt in the suburbs. The largest of several basins is 250 feet long and 150 in width, and with private compartments affords accommodation for 1,200 persons. They are situated on the new channel of the Danube cut by the Danube improvement works and now lined with spacious quays.

As an agricultural country Austria-Hungary is more than self-sustaining, exporting cereals to the value of 80,000,000 or 90,000,000 florins a year, with other food products of much greater amount. While the yield per acre is not large, averaging for wheat about 13 and for barley and oats 20 bushels an acre, there is an immense area under cultivation, Hungary alone having 2,500,000 farms and Austria almost as many. Flax and hemp are produced in several provinces; hops chiefly in Bohemia, and wine in Hungary, whence comes 70 per cent of the total annual yield of 400,000,000 gallons, Hungarian wines being in considerable demand for export. Beets are largely raised, and the sugar extracted therefrom is shipped to the extent of 100,000,000 florins a year. Sericulture is a government monopoly, the yield of silk for 1894 exceeding 5,000,000 pounds. Fruits and vegetables thrive well, and forests of oak pine and ash cover more than 60,000,000 square miles, for the most part on the slopes of the Alps and Carpathian mountains, though the central ranges are also well wooded . Though Austria does not rank high as a cattle-raising country, there is a considerable surplus for export, Hungary taking the lead in the smaller live-stock. The total value of all agricultural, animal, and forest products is probably not short of 2,500,000,000 florins a year.

About 1,500,000 ounces of silver and 60,000 of gold are the annual output of Transylvanian, Hungarian, and Bohemian mines, while, as I have said, nearly all the useful metals are widely distributed and in abundant supply. The total value of all mining and furnace products shows a steady gain from year to year, increasing from 92,000,000 florins in 1889 to 112,000,000 in 1894, a gain of 22 percent within half a decade, notwithstanding a heavy decline in market prices. Coal ranks first, with a yield worth 68,000,000 florins, and next is iron to the amount of 25,000,000 florins.

Section Five

Chapter the Thirteenth: Germany

Faust—This girl must win for me. Dost hear?
Mephistopheles—What! She?
She from confession cometh here,
From every sin absolved and free;
I crept near the confessor's chair.
All innocence her virgin soul,
For next to nothing went she there;
O'er such as she I've no control.

Margaret—Heavens! only look! what have we here!
In all my days ne'er saw I such a sight!
Jewels! which any noble dame might wear.
For some high pageant richly dight!
How would the necklace look on me!
These splendid gems, whose may they be?
Were but the earrings only mine!
Thus, one has quite another air.
What boots it to be young and fair?
It doubtless may be very fine;
But then, alas, none cares for you,
And praise sounds half like pity too.
Gold all doth lure
Gold doth secure
All things. Alas, we poor!

Faust—Sweet love!

Mephistopheles—By love despised. By hell's fierce fires I curse,
Would I knew aught to make my imprecation worse!
I'd yield me to the devil instantly,
Did it not happen that myself am he!

Where we to eliminate from Europe the German element western, it would almost unpeople its portion; for in all the countries adjacent to their Fatherland, and in many that lie beyond the seas, Germans, retaining their national customs and their national language, are rearing new empires or impressing on foreign communities the stability and vigor of their race. In the Austro-Hungarian dominions there are at least ten millions of Germans; in Holland, Belgium, France, and even in Russia they are also counted by the million, while in the United States, in Australasia, and in truth wherever men toil and traffic in the common pursuit of wealth, their influence is widely felt. The English, moreover, with their girdle of colonies encircling the earth, are essentially a German race, and of the words that form their language more than sixty percent are of German origin. Thus an account of the present empire includes but a part of the bodies politic which, though long desiring such a consummation, have only within recent years been welded together as a nation after many centuries of discord among rival creeds and rival governments. While holding aloof from each other in political institutions, they held aloof from all the world in their social and intellectual development; and here is the only people which, after emerging from barbarism, has attained to a leading position among the most enlightened of modern countries without such intermixture of foreign blood as could affect its identity of race or alter its habits and usages. This it is that gives to German history a deeper interest than belongs to mere dynastic changes; for impelled simply by its own latent strength, this mighty nation, though more than once on the verge of dissolution, has worked its way through countless obstacles to its present rank as the arbiter of Europe, as its foremost military power, and as one of the foremost in the arts of peace.

Many centuries before the Christian era the ancestral tribes of Germany migrated from the regions south of the Oxus to the plains of Scythia, and there remained for further centuries, leading a pastoral life, though tilling enough land to supply them with the coarse ground grain which with the flesh of beeves and goats was their only food. Domestic animals were their principal wealth, though they possessed also the precious metals, and knew how to work them into necklaces, rings, and other rude forms of jewelry. They could also fashion weapons and implements of bronze, but not of iron, and for navigation they had boats propelled by paddles, the use of sails and masts being as yet unknown. They had little in common with the native Scythian, whose home was in his wagon, for they lived in fixed habitations and held sacred the marriage tie, while among their judicial usages was trials by the ordeals of fire and water, the latter still maintained in the days of the Merovingian dynasty.

As flocks and herds increased the tribes moved westward, whether singly or in a body cannot be determined, first occupying Scandinavia, and then driving before them the Celtic races which had long been supreme in central Europe. They had no geographical organization, and as to their geographical distribution records are few and conflicting, the little that has come down to us being derived from the more civilized nations on their borders, for the Germans themselves had no literature and none but oral traditions. They were a warlike but unstoried people, the dread of their neighbors and the only one that successfully the confronted the Roman legions, the word Germans first used in a collective sense by Caesar and Tacitus, signifying according to some authorities shouters in battle, though more probably derived from ger, a lance or spear. Especially feared were the Cimbri and Teutones, the first of whom, after defeating five consular armies laid waste the region between the Rhone and the Pyrenees, causing panic and terror in Rome as though Brennus or Hannibal were at its gates. They were men of gigantic stature and powerful frame, with fierce blue eyes which looked straight at the foe without symptom of fear or flinching. For weapons they had

long, heavy swords and double-pointed spears, and for defensive armor coats of mail wooden shields, and helmets resembling the heads of savage beasts with widely distended jaws. Their women followed them to war, some of them acting as priestesses, cutting the throats of prisoners over a brazen vessel, and drawing portents from the flowing blood.

They were a numerous tribe; for when finally defeated by Marius at the battle of Vercellae, the Cimbrian host extended for more than three miles on each face of a solid square. Of the Teutones also more than 200,000 were slain at Aquae Sextiae, where now is the town of Aix. Plunder was not their object; neither was it glory; but simply to find in the fertile plains of Italy a land where they could live in plenty and establish permanent homes.

In the descriptions of the German tribes as given by Caesar and Tacitus, both from personal observation, there is no essential difference, though written at an interval of more than a century and a half. Covering most of their territory was the great Hercynian forests, tenanted chiefly by strange and fearsome beasts, a land of swamps and thickets, where as it seemed no sunbeam penetrated. Yet somewhere amid this wilderness primeval were raised crops of rye and barley, and on its borders were mountains well stored with the useful metals. Lands were held in common or were partitioned by the leaders, no one being permitted to retain his holding more than a single year.

They lived in dwellings built of the trunks of trees, but without the prison-like enclosures of walled towns and villages. They were divided into hundreds, half of whom set forth for war and conquest, while the remainder attended to the cultivation of the soil with the labor of slaves and farm animals. At the end of each twelvemonth there was a change of occupations, the warrior turning farmer and taking charge of flocks and fields. There were four classes; first the nobles and freemen, for whom war and the chase or idleness were the only pastimes; then the freedmen, who served in the ranks but had no political privileges, and lastly the serfs, who were classed and treated with the brutes. Home life was sacred, and especially, as I have said, the marriage tie, the German swain offering the maiden of his choice not gold or jewelry but a yoke of oxen or a spirited steed, while the wife that was to be was expected to furnish in return a suit of armor or a supply of weapons. They had neither temples nor a professional priesthood, but prayed to their gods in groves and forests as did the ancient Britons, and their worship was strongly associated with the phenomena of nature, whose alternation of summer and winter, of storms and sunshine, with forces seemingly engaged in strife, suggested the existence of good and evil deities.

Among their better qualities were truthfulness and hospitality, the courage of the men and the chastity of the women; among their vices and failings were drunkenness, gambling, and impatience of discipline or restraint.

Though never completely subdued to the Roman yoke, there are during the opening centuries of the Christian era strong traces of Roman settlement and civilization. By several of the emperors, beginning with Augustus, fortresses and towns were established, where traders from the imperial city bartered for German products the gold and silver ornaments, the costly fabrics and delicate wines, of Italy. Vineyards and orchards dotted the banks of the Rhine and Moselle; agriculture was extended and agricultural systems improved; mines were opened and many new industries developed, while the customs and character of the people had been softened but not essentially changed.

Large levies were raised for the imperial armies amid these warrior bands, those who accepted service returning with wondrous stories of the splendor of the outer world, where they had learned not only the art of war but the weakness of the empire which their own countrymen were presently to overcome. In the third century the Germans were no longer in fear of Rome; in the fourth they began to look upon Rome as their prey; in the middle of the fifth century the Herulian chieftain Odoacer, at the head of the confederated tribes, was crowned monarch of the western empire.

Defeated by Theodoric, king of the eastern Goths, after series of obstinate contests, Odoacer presently disappears from the scene, after colonizing the region between the Alps and the Danube. As ruler over Italy and Germany, Theodoric was regarded by both nations as one of the wisest and mightiest of monarchs, and from far and near came appeals for his counsel and protection. He it was who first conceived the plan of uniting the several divisions under one great national league; but the time was not yet ripe; for western Europe, including Britain, together with northern Africa and the islands that lay between, were then ruled by a number of tribes having little in common except a common language, the power of Rome rapidly hastening to dissolution even in that which remained of her eastern empire. During this period the Germans relapsed almost into the condition of savages, spreading ruin and misery throughout the fairest regions of Europe, so that there is no more disastrous epoch in all the long annals of human suffering. As fierce in their hatred of learning as they were ferocious in the treatment of their enemies they, obliterated the priceless monuments of human intelligence, the precious fruits of human inquiry and thought as completely as they swept from the face of the earth the wealth the culture, and social institutions of Rome. Their ablest leaders regarded knowledge with contempt, their literature being restricted to the poetic imagery in which German bards related the deeds of German heroes while even Theodoric, surnamed, the Great, could not write his own name, his signature being appended by smearing with black a mould in which the letters were cut. Yet they were not altogether savages; for messages and gifts were interchanged between their courts; there were alliances and intertribal marriages and of commercial intercourse, there was at least sufficient, an unfailing test of civilization, to place them beyond the reproach of savagism.

Settling themselves in the Roman provinces, where they owned more than half the soil, the leading members of these conquering hosts became in due time landed proprietors, or nobles, ruling over but intermingling little with the older and more civilized communities in which they lived, with separate languages and separate laws, each according to their own traditions. While fierce and cruel as invaders, they were lenient as masters, relieving the people from most of the heavy burden of taxation imposed by Roman governors, and thus in a sense appearing as liberators rather than oppressors.

Gradually imitating the customs of the subject races, some of the German tribes became themselves effeminate, and especially the Vandals, whose domain was in northern Africa. In 533 Gelimer, their king, was defeated by Belisarius, the last of the Roman generals, whose lieutenant, Pharas, drove him into the fortress of Pappua. Summoned to surrender, the monarch refused, but sent with his answer the following request: "If you, O Pharas, would do me a favor, send me a loaf of bread, a sponge, and a harp.” Asking what meaned this strange petition, Pharas was told: "The king asks for bread because he has tasted none since entering Pappua; a sponge he would have to cool his head, now heated with wine, and a harp to accompany his songs of misfortune.” The request was granted; famine presently put an end to the siege, and Gelimer bound with silver chains was taken with all his treasures to Constantinople. Thenceforth the Vandals disappear from Africa, while the eastern Goths, after a sturdy resistance, were driven from Italy across the Alps and merged among kindred tribes.

Of Clovis, the first German monarch worthy of the name, of the Merovingian sovereigns, and of the Salian Franks, whose history is for several centuries virtually the history of Germany, I have spoken in connection with the annals of France. With the Austro-Hungarian Empire the political career of Germany has also much in common, and here it will suffice to refer only to such incidents and personages as are closely connected with the subject matter of this work. It was in the days of Charlemagne, as I have said, that, after a long period of dissension, the union of church and state was finally completed and symbolized through his coronation by the pope, and for other and weightier reasons history, coupling the epithet with the name itself, has accepted Charles the Great as the real founder of the German empire. It was his aim in life, and one from which he never swerved, to unite all the German tribes under a single government and a single church. If he did not entirely succeed, the impress of his reign was felt throughout the middle ages, while in life he was regarded as the source of all earthly authority, from him to be transmitted to sovereigns, nobles, and officials of every degree. In May of each year he presided over the great assembly of freemen, receiving from each his tributary offering, apart from which no taxes were levied; for the income from the crown lands sufficed for the expenses of his court.

Charles was a man of herculean build and with a wonderful capacity for work, dispatching business with a promptness of decision and action in which he had no superior, except perhaps Napoleon or Frederick the Great. He was the fiercest of warriors, fighting like the giants of the Nibelungenlied, yet mild and urbane in social intercourse. To the arts of peace he was no less devoted, gathering about him men of learning, founding schools, and encouraging so far as lay in his power the cause of popular education. His habits were of the simplest, and in attire he was equally plain, wearing only, except on state occasions, a homespun garment of linen over which in winter was a coarse Frisian cloak. His courtiers he laughed to scorn as they followed him to the chase in gorgeous raiment of oriental fabrics; for hunting was his favorite pastime, and next to it swimming in the baths of Aix, where was his favorite residence, though elsewhere he had several palaces. He traveled much, for the better superintendence of his public and private estates. With many potentates, both eastern and European, he interchanged friendly messages and costly gifts; but for himself he always preferred the ring of the sword to the ring of gold.

His faults were neither few nor small; but on these I need not dwell, remarking only that the Charlemagne of history and the Charlemagne of heroic legend were different personages, the one being a conqueror and statesman and the other a warrior-saint, above mortal wisdom and strength, invincible in war and incapable of error in judgment or infirmity of will. "His eyes," says the song of Holland, "shone like the morning star. Terrible to his foes he was merciful to offenders, an upright judge who knew all laws and taught them to his people as he had learned them from the angels, while bearing the sword as God's own servant."

But the scepter and sword of Charlemagne could be wielded by none but himself; and as we have seen the vast structure which he reared fell to pieces not many years after his death, presently to be rebuilt by stronger hands than those of his successors. With the death of Louis II in 875 the direct line of Charlemagne became extinct, though early in the following century we find on the throne a relative through the female branch in the person of Conrad of Franconia, a well meaning monarch but always under priestly rule. In the reign of Henry who succeeded him as the first of the imperial house of Saxony were again united all the dukedoms into which the kingdom had been divided, the monarch when on his deathbed summoning the nobles and exacting from them a pledge to acknowledge his

son Otto as their sovereign. A glorious reign was that of Otto I, or Otto the Great as he was called, crowned at Aachen and girded with the sword of royalty by the archbishop of Mayence, while princes rendered him service as cup-bearers, stewards, and chamberlains.

Taking Charlemagne as his model, he treated the great lords as vassals, even asserting the power to depose them for failure in duty to himself or his empire.

It was during Otto's administration that the word Germans first came into general use as a national term, though before applied by way of distinction between those of Teutonic and Roman race. His many wars at an end, whereby he became the most powerful of European potentates, receiving from the pope the imperial crown of the Caesars, the emperor devoted himself to the internal affairs of his domain, the management of which was no easy task; for the royal estates were widely scattered, and much of their surface was covered with almost impassable forests. Proceeding from place to place, he sat in judgment on all difficult and important questions, minor controversies being decided by judges in accordance with tribal laws. At festivals he was surrounded by the nobles of the entire empire, bringing the voluntary gifts which, with the contributions of subjugated regions, formed the principal source of revenue. The Jews indeed paid a capitation tax, and a small income was derived from roads, rivers, and mines; but money was extremely scarce, and as in other feudal countries, tribute was rendered chiefly in service or in kind.

In the reigns of Otto II and III there is nothing that need here detain us, and with the death of their successor Henry II, in 1024, the dynasty of the Saxon monarchs comes to an end. In September of this year, as was the custom when the reigning family became extinct, the entire German people assembled on the plain near Kamba to choose for themselves a sovereign. Here were gathered the bishops and abbots the nobles and freemen of the five great tribes or nations,—the Saxons, Franks, Bavarians, Suabians, and the men of Lorraine—but of vassals there was not one, for though forming at least eighty percent of the inhabitants, they belonged only to the population and not to the people. The choice fell on Conrad, the elder of the two princes of Franconia, and for a century later the throne of Germany was filled by Frankish monarchs from the vine-clad banks of the Rhine. During this period Poland became a dependency and Switzerland an integral portion of the empire, while Burgundy rendered at least nominal allegiance. Near the close of the eleventh century came the first of the crusades, a disorderly throng of enthusiasts, whose zeal for the faith was shown chiefly by maltreating the Jews, being followed by the disciplined array of Godfrey of Boulogne, a prince of the empire, who wrested from the Saracens the holy sepulcher.

From 1138 to 1254 reigned the house of Hohenstaufen, of which Lothaire was the first sovereign, adding to his domain as a feudal appendage the kingdom of Denmark. A mighty monarch of this line was Frederick Barbarossa, that is to say Frederick the Redbeard, acknowledged by all European princes as the first among them. Though a great man, Frederick had his weaknesses, and among them was a love of titles, especially the title of Caesar. Marching into Italy he came to the assistance of Pope Adrian IV, then driven into exile by the monk Arnold of Brescia, capturing on his way several Lombard cities, some of which welcomed and others defied him.

On reaching Rome he was offered its sovereignty for a given consideration; but he preferred, as he said, "to give them iron rather than gold.” As the price of his coronation, however, he delivered to the chief pontiff the rebellious monk to be burned at the stake, and for this service received the coveted crown. Returning homeward, he chastised the robber knights who had grown bold during his

absence; he rebuilt the city of Lubeck, making it the wealthiest emporium on the coast of the Baltic; and further to increase his possessions he married the only daughter of Count Reinald of Burgundy, a rich and beautiful heiress. Four other expeditions he made to Italy, destroying the town of Milan, and placing others under German governors with almost unlimited powers. Crowned king of Burgundy at Aries, he distributed the great dukedoms among relatives and favorites, subdividing them as far as possible, since from minor princes there was less to fear. Then at Mayence, in May 1184, he held festival on a magnificent scale, attended by the clergy and nobles of the realm, by foreign ambassadors and by freemen to the number of 70,000 in all. For this, celebration an imperial palace was erected on the border of Rhine surrounded with a city of many-colored tents, the ring of the emperors sword proclaiming the majority of his eldest son amid the splendor of a peaceful and united empire. Presently came the crusade in which he lost his life, though according to German legend he is not dead but sleepeth and in due time will reappear to establish anew the ancient glories of his monarch.

With Conradin, son of Conrad IV, ends the brilliant dynasty of the Hohenstaufens and the magnificence of the ancient German empire, presently to be revived but not until after the lapse of several centuries. Once more the land was divided into a number of petty stales and principalities loosely held together; and though the spirit of chivalry gilded the surface, in the heart of the kingdom was the canker of national decadence. The years that elapsed before the accession of the Hapsburgs, whose annals belong rather to Austria, were termed the great interregnum, competitors indeed appearing for the crown but not at the instance of the electoral princes, who looked with complaisance on the annihilation of imperial power as tending to increase their own. Yet they would sell the crown to the highest bidder, and during the lifetime of Conradin were even base enough to offer the bauble to Hermann von Henneberg, a wealthy and ambitious noble, working on his vanity and obtaining from him large sums of money in return for promises which they never intended to perform. Another aspirant to this shadow of royalty was Alfonso of Castile, who paid 20,000 marks in silver; and still another was Richard, duke of Cornwall, who sent from England, as is said, 32 tons of solid gold. Both were elected, to the scandal and disgrace of all true Germans, though Alfonso never appeared on the scene, and to Richard, except when his treasury was full, was never conceded so much as the authority of a sheriff.

Before turning to Prussian annals, let us glance for a moment at Germany during the Middle Ages, when feudal lords strove with monarchs for supremacy, while between them the people were ground into dust as beneath the nether millstone. In this mournful period the church was the only protecting and educating power; its numerous services and festivals gave to the life of the poor its only cheer, while the tall spires of majestic cathedrals, open for the worship of all, were visible far and wide throughout the land. Miracles were in plentiful supply, and if the clergy themselves were given to riotous living, their treasures, constantly increased by gifts and bequests, were none the less at the disposal of the sick and needy. Thus, notwithstanding the horrors of the inquisition, the church was in the main a benefit to the people, among whom its power steadily increased. The crusades had also a quickening influence, especially among the cities of Italy which long formed a portion of the German empire. Between them and the new kingdom whose capital was at Jerusalem an active trade was developed in the costly fabrics, weapons, and other rich products of the East, furnishing the gorgeous apparel and equipments which marked the age of chivalry. Thus Western Europe increased in wealth and learned the art of luxury, while as to intellectual culture several of the sciences were largely derived from the Saracens, so that the proud Christian began to ask himself in what respect he was

their superior. Such were the only lasting results of the crusade preached by the mendicant monk who traveled through Europe mounted on an ass.

Between the mediaeval annals of France and Germany there was this essential difference; that in the former the great lords were crushed and the king ruled with almost absolute power, while in the latter the princes established their sovereignty, each in his own principality, and the empire was broken into fragments. For this condition of affairs the papacy was largely responsible, aiming as it did at the temporal supremacy of Europe, while the loose confederation of the German states offered tempting opportunities for the interference of the holy see. Foreseeing the danger threatened by ambitious nobles, it had been the policy of Charlemagne to place the more powerful duchies as far as possible under Episcopal control, hoping thus to strengthen the power and prerogatives of the throne; but he entirely overlooked the fact that these spiritual potentates owed to the supreme pontiff a far more binding allegiance than to himself. Moreover, as the secular head of the Roman monarchy, the ruler of Germany was ever liable to be regarded by the pope with jealousy and distrust, developing at times into actual hostility. Thus discord was fostered among the electoral princes, and through this influence it was that the empire became as a house divided against itself.

It was through the grants of valuable fiefs or the acquisition by other means of large estates that the princely families of Germany founded their numerous dynasties. Many whose possessions were not great enough to support this dignity accepted service under the more wealthy and powerful nobles, and chiefly from this class came the knights, or equestrian order. The knight, or, as in the German, ritter, was in fact a noble vassal, bound to his lord with the strongest bonds of allegiance even to the commission of crime and the forfeiture of life . Yet not only in Germany but in France, Normandy, and Italy, admission to this order was a coveted distinction, valor and untarnished honor being required of all its members, while among their duties was the protection of the weak and especially of women. Many of the knights had their separate castles, with drawbridge moat, and tower, but on a smaller scale than those of the higher nobility, in which were often courtyards spacious enough for the holding of tournaments. In the earlier days the chase was their pastime when, not engaged at court, in war, or in lovemaking. The woods abounded in such noble game as the stag, the elk, the fallow deer, and the fierce wild bulls which Charlemagne loved to hunt in the forests of Ardennes. To live the lives of freebooters was at first beneath their dignity; but as knighthood degenerated it became the custom to live "by the stirrup," that is to say by pillage and highway robbery. Thus the castles both of princes and knights were converted into dens of robbers whence armed bands fell on merchant convoys and captured their costly freights. There were none to prevent or punish them, and there was no protection for the weak, except banding together, or the payment of tribute in the form of taxes and tolls.

This was in truth the time when might was right, when order and law were at an end, when honesty was merely a name, and all sense of honor was lost.

Life and manners were rude in German cities and castles after the relapse which followed the age of chivalry, when with the customs of chivalry was extinguished all chivalrous sentiment. Respect for women gave place to contempt, and instead of knightly devotion were drunken orgies from which decent women were excluded. At the courts of princes vulgar ostentation demanded an expensive retinue of attendants, with richly caparisoned steeds, thus embarrassing the nobles with debt, the burden of which must be borne by their dependents; for knights must banquet and hold carousal

though the peasantry starved. Often, however, the knights themselves were in danger of starvation; for bitter poverty lurked within their castle walls, where they lived with a handful of servants and a few famished horses and dogs, until, going forth like ravenous wolves, the plunder of some merchant train and the ransom of its owner supplied them with stolen funds. During this age of disorder multitudes were deprived of their homes; nor was there any inducement to make a home, men breaking loose from all family and local ties and filling the land with vagrants and vagabonds of all degrees. In the middle of the fourteenth century came the Black Death, the most destructive pestilence that ever overtook the human race, and accompanied with a moral pestilence more hideous than itself. Europe lost one-fourth of its population, and in Germany, as its historians relate, half the nation perished from its effects, many towns and villages being utterly depopulated, while richly freighted vessels drifted at sea with no living soul on board to tell of their awesome fate. For this visitation the Jews were blamed, poisoning the wells and springs, as was believed, with intent to destroy the Christians. Hence came persecution, all the more bitter in that many of the wealthiest and most enterprising citizens were Hebrews. At Strasburg two thousand were burned at the stake; at Cologne and elsewhere the Jewish quarter was sacked, the houses burned, and the inhabitants butchered, their effects being divided between the archbishop and the townsfolk according to the terms of a compact whose opening words are: "All the Jews in the city as well as in the province have been slain."

"Their money," says a chronicler of the times, "was the poison which slew the Jews," who in some places, as at Worms and Mayence, shut themselves up in a body and put an end to their lives.

But let us turn from this somber picture, for such a condition of affairs could not long endure. After continuing for two years the pestilence was stayed, and society gradually returned to its normal condition, though the civilizing influences of generations had for the time been obliterated. With the invention of gunpowder the robber knights and their dens of plunder were swept away, and before the dawn of the reformation, the last vestige of this foul offshoot of the noble institution of knighthood had disappeared. Still there remained the religious orders, first among which were the knights of St. John and the knights templar, organized for the protection of pilgrims in the holy land. To these had been added during the third crusade a German order which later played an important part in history; for uniting with "the brethren of the sword," still another and noble order, they conquered and colonized Livonia, and afterward settling in Prussia, founded the "little Germany" which presently became so great. Their career in the east at an end, all these orders grew wealthy through numerous gifts and grants, becoming one of the most powerful elements in the body politic, while the knights templar still form one of the richest and most influential fraternities in the world.

Many of the great cities of Germany owe their origin or restoration to the building of cathedrals, often in places remote from human habitations but bringing together workmen and worshipers whose wants afforded an opening for trade. Imperial palaces were the germs of other cities, and still others were established by wealthy princes, Henry the Lion, for instance, founding Brunswick in Saxony and Munich in Bavaria, while few attained to importance or prosperity through advantages of site or the superior energy of their earlier settlers. In the time of the earlier Frankish sovereigns German cities, apart from their cathedrals and Episcopal mansions, were little in advance of the towns of barbarous nations of the Dahomeans, let us say or of the New Zealand, Maoris.

They had neither walls nor pavements and their dwellings were small wooden huts, where throughout the long winter nights sleep was disturbed by the howling and snapping of wolves. They were peopled almost entirely by vassals, though men of knightly rank were among their merchants or landed gentry, the feudal lord being represented by a bailiff who usually lived in a castle near at hand. Gradually the lower classes were emancipated and began to make their influence felt, dividing themselves into guilds according to their trades each with a distinct and separate organization. During the long struggle between the emperors and princes they were always on the side of the former, receiving in return valuable franchises and privileges. Manufactures added largely to the wealth produced by farming; more comfortable homes were built, and the religious spirit of the times found expression in the rearing of costly and magnificent temples, whose towering spires are still among the landmarks of Germany. With prosperity came also enjoyment, especially in the form of festivals and parades, where the citizens fared sumptuously, doffing their peasants or tradesman's garb for more expensive and showy attire.

Before the close of the middle ages there was a further improvement in the condition of affairs, municipal life in the fifteenth century being attended with comfort, enjoyment, and prosperity, further promoted by the holding of annual fairs. Besides richly endowed cathedrals and churches there were rathhauses, colleges, libraries, and other public buildings, many of them handsomely decorated. From wooden straw-thatched huts the dwellings had grown to several stories with towering roofs, the ground floors being usually occupied as stores. Here were carried on many branches of industry and art, as those of the goldsmith and silversmith, the weaver and armorer, the painter and sculptor. Rich families, proud of their wealth, held grand balls and banquets, to which the representatives of the guilds were among the invited guests. The guilds had also their entertainments, each with its separate banners, emblems, and uniforms, while the numerous church festivals were honored by the entire populace in stately and splendid processions. Silver vessels were commonly used at feasts, and a citizen's wife considered herself poor indeed if she could not wear ornaments of gold.

By slow degrees the trade of Germany extended far and wide as substantial highways connected this central empire with the nations which girded its frontiers. By way of Italy came the costly products of the orient, the silks of China, the spices and gems of Arabia and India, and the richly wrought weapons of Damascus. These with their own fabrics they distributed throughout northern and eastern Europe, together with their wine and beer which the north must have but could not produce. Even Russia depended on Germany for a portion of her supplies, the merchants of Lubeck and other Baltic seaports shipping their goods to the remotest regions where adventurers had paved the way for German commerce and culture. Here the foundations were laid for the enormous volume of trade developed by the Hanseatic League, whose origin and operations will presently be further mentioned. Colonies were also established on conquered or abandoned lands, and peopled as they were by thrifty and diligent settlers soon developed into prosperous and powerful communities.

Thus it was that Berlin was founded, and thus Vienna, Prague, Frankfort-on-the-Oder, Landsberg, and other cities either came into existence or were exalted into great centers of population and wealth. To German colonization both Prussia and Austria owe much of it their past and present greatness, and as early as the thirteenth century German dominion extended over the entire region where today the German language is spoken.

Thus speaks Æneas Sylvius, afterward Pope Pius II, of German cities as he found them about the middle of the fifteenth century. "Cologne is not excelled in all Europe for the splendor of its churches and citizens houses, its wealth and its defensive strength. Strasburg is traversed, like Venice, with canals, but is far more pleasant and healthy. It has a cathedral of freestone with one finished spire, which hides its wonderful top in the clouds. Its city hall and even its private houses are such as no prince need be ashamed of. Augsburg is wealthy and well governed. Salzburg is magnificent; Regensburg is rich in sanctuaries and pious memories; but Vienna is the most splendid of all, the ambassadors of Bosnia declaring that the spire of St. Stephen's alone was worth more than their kingdom. Its houses are of stone, with the richest of furniture and windows of glass, still a rare luxury. Dantzic is strong by land and sea and can send forth fifty thousand warriors; but Lubeck excels all northern cities in lofty buildings and handsome churches. In Franconia, Nuremberg shows from afar its majestic beauty, and the impression is strengthened on entering its gates and beholding its handsome streets and dwellings. Here are the venerable and beautiful churches of St. Sebald and St. Lawrence; the proud and strong castles of the emperors, and citizens' houses that seem built for princes. On the whole it may be asserted that no nation in Europe has cleaner or more agreeable cities than Germany, and their appearance is as fresh as if they were built but yesterday. The citizens too are soldiers and each one has a sort of armory in his house. The boys learn to ride before they can talk, and sit unmoved in the saddle when their horses run at full speed while the men wear their armor as lightly as their limbs. Surely you Germans might still be the masters of the world as, once you were, but for your many masters."

It will be observed that in this highly colored but not untruthful picture our mediaeval chronicler makes no mention of Berlin and other Prussian cities which have since attained to a foremost rank. As compared with Austria and the southern sections of the ancient German empire, the kingdom of Prussia is of comparatively modern date the materials, of which it has been built and free, its duchies, principalities, cities being of a most varied and heterogeneous character. If by Prussia was achieved the political regeneration of Germany, this is not due to superiority of race but rather to the accident of geographical position; for the greater portion of modern Prussia was originally occupied by Slavonic nations, with but a slight intermixture of pure Teutonic blood. Yet more perhaps to her subsequent blending of races than to any other cause does Prussia owe her supremacy among the great European powers, as a nation of scholars as well as a nation of soldiers.

Brandenburg, a region formerly extending eastward from the Elbe to the Vistula, was the kernel of the Prussian kingdom, and here about the middle of the twelfth century ruled Albert the Bear, a prince of the German empire with the self-assumed title of margrave, peopling his lands with Hollanders, and through careful drainage and husbandry converting swamps and sandy plains into fertile districts. His descendants ruled for nearly two centuries when, the line becoming extinct, Brandenburg passed into the hands of Louis the Bavarian, and soon afterward was absorbed in the dominions of Charles IV, who paid for it a certain sum of money, for here was a long coveted outlet to the Baltic sea. Recognized as an electorate in 1356, on the death of Charles it fell to the inheritance of his second son Sigismund, who being in need of funds, mortgaged this portion of his domain to his cousin Jodocus of Moravia. But Jodocus regarded it merely as a source of revenue, leaving the country to govern itself, so that wealthy citizens were plundered by the nobles, and neighboring powers helped themselves to such portions as lay convenient to their borders. Finally, in 1415, the electorate was conferred on

Frederick VI of the house of Hohenzollern, whose origin is traced to an ancient Swabian family, and whose descendants, since 1701, have occupied the throne of Prussia.

Assuming the title of Frederick I the new elector restored order to a realm before under the control of robber barons, and whose peasantry had been reduced to a condition of feudal servitude. Passing over the intervening period, in 1608 the electorate fell to John Sigismund, who also inherited the duchy of Prussia, then merely a Polish fief, though formerly a portion of the domain conquered by the Teutonic knights, where were nearly threescore walled towns, as many castles, and several hundred villages.

After some further changes the Hohenzollern possessions were acquired by Frederick William, styled the Great Elector, whose energy and ability rose superior to a combination of adverse circumstances. A country which at his accession was divided against itself, laid waste by war, and without army or revenue worthy of the name, had become at his death second only to Austria among the divisions of the German empire, the champion of Protestantism, and a power that made itself felt in all European questions. Its area had increased to more than 40,000 square miles, with a population exceeding 1,500,000, a revenue increased fivefold, a goodly store of treasure, and an army of nearly 40,000 disciplined troops. Such was the state of Brandenburg-Prussia to which Friedrich III succeeded, a weak and frivolous prince, in whose administration there is little worthy of note except that at Konigsberg he was crowned or rather crowned himself King of Prussia, with the title of Friedrich I, amid ostentatious and costly ceremonies.

A man of other caliber was Friedrich Wilhelm I, the irate monarch whom Carlyle describes in graphic phrase. His first act was to reduce the expenses of court and civil list from 275,000 to 55,000 thalers, the former being the sum expended by his father, with a much larger amount spent on himself. His internal administration made of Prussia a model kingdom, though under purely arbitrary rule, for the estates were never consulted and ministers were little better than clerks. The condition of the peasantry was improved; their taxes were reduced, and the worst features of serfdom were abolished. Agricultural and other industries were carefully fostered and new branches of manufacture established, especially that of woolen cloths, a royal factory erected at Berlin supplying the entire army with uniforms. The foundation was laid of the common school system of Prussia which afterward became one of the best in the world; but, for literature, science, and art, or for higher culture in any form, there was no encouragement. Friedrich Wilhelm was one of the shrewdest and most economical of most practical, monarchs, ruling with patriarchal but somewhat tyrannous sway, for he was not only a military martinet but insisted on the most rigid discipline in all departments of civil administration. His chief care was the army, and on this he expended more than seventy percent of a revenue doubled during his reign, meanwhile storing in his treasury several millions of thalers; for none knew better than he that in war money was the first thing needed, and the second, and the third. All this with large family estates acquired by purchase, he left to his son Friedrich II, who twice escaping death at his father's hands, was spared for the great achievements which have won for him on history's page the well earned title of Frederick the Great.

In the two wars which gave to him the duchies of Silesia, Frederick exhausted the resources left him by his father, both in thalers and grenadiers; but in the interval of peace which followed he had ample leisure to replenish his treasury and to recruit his armies, entering on the Seven Years' war with 150,000 men and a fund war with 11,000,000 thalers, afterward largely increased by British subsidies. Fighting as he did against all Europe, against a coalition which had at its command a

population and revenue at least twenty times larger than his own, his campaigns, though not always successful were marvels of military skill. Except for her rank as a first-class power, and for the spirit of patriotism kindled by a series of brilliant victories, Prussia gained nothing by the war, and for these intangible results the cost was enormous. Nearly 200,000 men perished in the field and more than twice that number through famine and disease. Towns were destroyed or deserted; districts left uncultivated, and such was the scarcity of food that even seed-grain was used for bread. But Frederick was as great in peace as in war, speedily repairing war's ravages, advancing money to those in need, remitting taxes, repeopling the land with colonists, and meanwhile keeping clear of debt by a careful husbandry of his finances. Thus at his death in 1786 the kingdom contained an area of 75,000 square miles and a population of 5,500,000, with ample revenue, and with 60,000,000 thalers in the treasury.

During the reign of Frederick's nephew and successor the domain of Prussia was further enlarged through the partition of Poland and the acquisition of Anspach and Baireuth, increasing the area to 100,000 square miles and the population to 9,000,000 souls. That in the Napoleonic wars both territory and people were reduced by one half, was due to the timid neutrality of the then reigning monarch, Friedrich Wilhelm III. Had he joined Austria in her gallant but unsuccessful struggle against the legions of the great usurper, doubtless he might have turned the scale of victory; but Friedrich had no stomach for the fight, consenting to be used as the tool of Napoleon until forced single-handed into war. His armies were no longer those of Frederick the Great; they were poorly armed and equipped; they were widely distributed: and except for Blucher, there was not a single general who knew how to handle large masses of troops. The result was inevitable, the disastrous defeats at Jena and Auerstadt being followed by the shameful capitulation of fortresses and corps almost without striking a blow. Entering Berlin in triumph, Napoleon afterward dictated the humiliating terms, including the enormous indemnity imposed by the peace of Tilsit. Yet as was shown in the campaigns of 1813 and 1814, and again in the campaign which ended at Waterloo, there was excellent material in the Prussian ranks, needing only able commanders, for men will not fight when there are none to lead.

The congress of Vienna restored to Prussia most of her lost possessions, with the addition of a part of Saxony, the Rhineland, and Swedish Pomerania, the kingdom of Hanover forming a wedge which divided her empire in twain.

Notwithstanding her ragged western frontier, the work of consolidation was accomplished with little friction, and soon afterward Prussia began to break loose from the leading-strings of Austria, still the dominant power in the Germanic confederation. During the administration of Friedrich Wilhelm IV, notwithstanding his exaggerated ideas of the divine right of kings, constitutional government based on democratic principles was for the first time established in Prussia, while the old system of estates gave way to representative parliaments. Of the reign of Wilhelm I and his successors, of the Schleswig-Holstein episode, of the war of 1866, whereby Prussia became the head and Austria was excluded from the Germanic confederation, the incidents are too recent here to require more than passing reference. For many years after the Franco-Prussian war the history of Prussia was almost identical with that of Germany, with Bismarck as the central figure. Though his policy was essentially autocratic, ignoring all party and if need be parliamentary action, while having always in view the necessity of maintaining a strong central government, the imperial chancellor seldom failed to form such combinations as would suffice to carry his favorite measures. To him is largely due the

increasing prominence of Germany as a colonizing power, and while this is nothing new, for such projects were entertained as far back as the time of the Great Elector, the colonial enterprises of the present day give promise of permanence and will probably become wide-reaching in effect.

Thus, in as brief phrase as the nature of the subject would permit, I have sketched the origin and development of the great German empire, now with a population exceeding 50,000,000 and with a territory of more than 200,000 square miles, for the most part in the very heart of Europe. Watered by seven large rivers and by innumerable smaller streams, of which at least threescore are navigable, the surface is strongly diversified and with the most varied of geological formations, the mountainous regions of the south and west gradually merging into the level plains of the north and east. The climate is temperate, except that in the extreme north the winters are long and severe, the temperature varying in portions of Prussia from 100 degrees to -30 degrees. The people are among the most orderly and industrious in the world, and of resources there is no lack; nor is there any country in which they are utilized to better advantage. While food products are insufficient for the country's needs, agriculture is conducted on scientific principles, with strict economic methods and plentiful diversity of farming the state in addition to numerous agricultural colleges and organizations, fostering the growth of husbandry and advancing its interests with rapid strides. Both in value and quantity the mining products of Germany are larger than those of any European nation, with the single exception of Great Britain next to which also the empire ranks in volume of manufactures. The finances of the country are in a sound condition with revenue, and expenditure about equally balanced, while as an offset to its public debt are large invested funds. To protect this mighty realm is an army which on a peace footing musters nearly 600,000 men and with a war strength exceeding 3,000,000, all trained and disciplined troops and of more than average intelligence. Of a navy of more than 100 vessels, about 30 are battle or port defense ships, and there are some 40 cruisers with 135 torpedo and other craft.

Such is the Fatherland of today, and no wonder that its sons are proud of their country, proud of its political greatness and material prosperity, and proud of the imperial part which it has played among the great sisterhood of nations. What Italy was in the days of the Roman empire, what Austria, Spain, and France were each in turn, that is Germany in these closing years of the nineteenth century; nor is there any reason to doubt that for many years to come she will be able to preserve the peace of Europe, of which she has so long been the recognized arbiter.

Turning to the cities of Germany, where wealth and all that wealth has created find their highest forms of expression, let us begin with Berlin, the metropolis of the empire, the seat of royalty and the third in size, among European capitals; yet as to origin one of the most obscure of German settlements, even the origin of its name being still in doubt. When we say that it was a colony established probably by Albert the Bear in the year 1170, and that in 1225 it received a charter from the resigning margrave, we have said about all that is known as to the founding of the imperial city. Situated in the midst of the sandy and marshy plain which borders on the river Spree, it is first mentioned in connection with the township of Koln, with which in 1307 it was united, the place then attaining to some importance and ranking next to Brandenburg, where dwelt the margraves. In the middle of the sixteenth century it had a population of at least 12,000, though reduced to half that number at the close of the Thirty Years' war. By the Great Elector was founded the new quarter named Dorotheenstadt in honor of his wife, and by him was opened the Lindenallee or avenue of lime-trees where is now the boulevard of that name. New settlers flocked into the town; new enterprises were

promoted; commerce expanded rapidly, and then it was that the nucleus was formed of the royal library and art collections of Berlin.

King Friedrich I founded the quarter still known as the Friedrich-stadt, together with the chateau of Charlottenburg, churches and town halls, the academy, and the new palace of Berlin, now two centuries old. By Friedrich Wilhelm I substantial improvements were also made, but with no attempt at decoration; for this monarch loved well his thalers, and cared more for his "tobacco parliament" than for all the architectural garnishments in the world. Frederick the Great did much for his capital, though he seldom lived there, sparing neither time nor money in its extension and embellishment. Unfortunately he had a hobby for designing his own buildings, or essentially altering the designs prepared for him, very much to their detriment. The opera house, somewhat enlarged but otherwise little altered as to exterior plan, was erected during his reign. Among other of his structures were the cathedral, the library, the palace of Prince Henry, now the university buildings, and hundreds of the public and private mansions which have made of Berlin one of the most sightly of European cities. Industries and commerce were fostered; literature, art, and science woke to life, and to this period belong such men as Lessing, Nicolai, and Moses Mendelssohn.

Nevertheless Berlin suffered severely during the Seven Years' war, and far more severely during its occupation by Napoleon, who dealt with it almost as harshly as Alaric or Genseric dealt with ancient Rome. Though rapidly repaired, the disasters of the Franco-Prussian war of 1806 left for the time a most depressing effect, and it was not until after the conclusion of peace in 1814 that the city began to assume its modern aspect. Few of the great public buildings in which Berlin is extremely rich belong to an earlier period, many of them being erected or completed during the reign of the emperor Wilhelm I and his successors. The rathhaus, for instance, was finished in 1869 at a cost, including its site, of $2,500,000, and the borse in 1863 at an outlay of $900,000, the New National gallery, the handsome Jewish synagogue, and other costly and elaborate structures belonging to a recent date. Most of them lie within a narrow compass, and if in architectural splendor Berlin is inferior to Paris, in no city in the world are so many imposing edifices near together.

Entering by way of the Brandenburg gate, we find ourselves in a city with more than 1,750,000 inhabitants living within an area of 25 square miles, for the most part in lofty dwellings intersected by hundreds of regular and spacious throughfares. It is one of the greatest commercial, financial, and manufacturing cities in Europe, an important railroad center, and with a busier water traffic than that which is conducted on the Rhine. Yet the people are not entirely given over to business; for there are more than 60 plazas and several public parks, among the most attractive of which is the Austellungspark, with its evening concerts and reproductions of classic structures, the Thiergarten, a wooded tract of more than 600 acres, extending beyond the gate. There are zoological gardens and aquaria, and there are more than a score of theaters, art, and education, with numerous halls for popular entertainments. Many temples of science are there, and charity is represented by hospitals, one of which is under the direct control of the empress. The absence of churches in Berlin is noticeable; the citizens are not a church-going folk, less than two per cent of the entire population attending service of any kind.

From the Brandenburg gate to the Royal castle extends a series of avenues, chief among which is the Under dem Linden, nearly 200 feet in width and so-called as I have said, from its rows of lime-trees These are the busiest and most beautiful of Berlin thoroughfares bordered as they are by stately

mansions and fashionable, stores in the vicinity being many buildings rich in historic interest. Before passing into the Linden, let us glance at the gate itself; for it is a massive eighteenth century structure, more than 200 feet in width, erected in imitation of the Propylæa at Athens, and surmounted with a quadriga of Victory. Between the gate and the Linden is the Parisierplatz, so-named from the occupation of Paris by the Prussians and their allies in 1814. On its southern side is the former palace of Marshal Prince Blucher, now occupied by the president of the reichstag.

On the Linden itself we are confronted with a dazzling array of stately palaces and mansions, number one being the palace of Count Redern, number seven that of the Russian embassy, and so on for almost a mile in length. A little more than half way is the bronze equestrian statue of Frederick the Great, a masterly composition by Ranch, representing the monarch in his coronation robes, and with elaborate decoration of its granite pedestal in allegorical and historic figures. On one side of it is the palace of Wilhelm I, where on the 9th of March, 1888, the most powerful of all German sovereigns quietly passed from earth; on the other is the Academy building where both art and science are represented. Near at hand are the spacious University buildings, in whose gardens are tin statues of William and Alexander von Humboldt, with collections of medicinal and industrial plants. In addition to the class and lecture rooms required by 5,000 or 6,000 students, there are many structures connected with the university, including chemical laboratories, medical, zoological, botanical, and other museums and institutes. Of the Royal library nothing need be said as to its architectural plan, if in truth it can be said to have a plan; but its collections rank with the largest and most valuable in the world, including more than 1,000,000 printed volumes and 20,000 manuscripts. Among them are Gutenberg's parchment Bible of 1450, the first work printed with movable types; there is also the manuscript of Luther's Bible, and an eighth century manuscript of the gospels, once the property of Charlemagne, and by him presented to a Saxon duke.

The Opera house faces the library on the opposite side of the Linden. Destroyed by fire in 1843, it was restored according to its original plan as first completed exactly a century before. The portico is composed of Corinthian columns, and on the tympanum is a group of allegorical figures relating to the drama. The interior is spacious and tastefully decorated; but the corridors and ante-rooms with their scant proportions contrast unfavorably with those of the grand opera house at Paris. Beyond is another group of palaces, including that of the empress Victoria, connected by an arch with the palace of the princesses. Not far away is the arsenal, one of the finest and most substantial buildings in Vienna, in the form of a square with a side of nearly 300 feet. There are fine sculptural decorations, and above the portal is a statue of its founder Friedrich I. In 1883 it was converted into a military museum, in which are historic collections of the weapons and enginery of war, with portraits and statues of famous warriors and mural and other paintings relating to the battle and the siege.

In line with the eastern extension of the Linden is the Schlossbrucke, one of fifty or more bridges that span the Spree, and one of the few possessed of architectural merit, its handsome parapet adorned with marble groups representing warrior life. A little beyond it is the Lustgarten, formerly used as a drill-ground, and in the center of which is an equestrian statue of Friedrich Wilhelm III, the figures on its pedestal representing, among other subjects, industry, science, art, and religion.

On the southern side of the Lustgarten, which at one time formed a portion of its grounds, is the Royal I castle, more commonly termed the Royal palace, a huge rectangular structure, or series of structures, solid, massive, and imposing, but with little of plastic or other exterior embellishment.

Originally erected as a mediaeval chateau by one of the electors, though many times altered and enlarged, it is only within recent years that the buildings have been completed, additions restorations and renovations continuing from the middle of the fifteenth century almost until the present day, while the portion fronting on the Spree alone retains its original form. As now it stands the palace is a four-story edifice, 650 feet in length, 375 in depth, nearly 100 in height, and capped with a dome whose summit is about 330 feet above the pavement. It encloses several courts, monument of the war of 1870 one of them arcaded and another containing a group of St. George and the dragon in bronze. The portal of the west facade is a feeble imitation of the triumphal arch of Severus, and facing the Lustgarten are groups presented by the emperor Nicholas of Russia.

There are more than 700 apartments in the palace of the Hohenzollerns, some of them containing treasures more than sufficient to purchase the ransom of a score of princes. In all the state rooms are portraits of the royal family past and present; the reception rooms are handsomely decorated; there is the room in which the crown jewels were formerly kept, and there is a bridal chamber, still used by the newly wedded couples of royalty. But it is in the rittersaal, or ancient throne-room, that splendor, if somewhat barbaric splendor, reaches its climax. Here are thrones of pure silver, above which is the ponderous silver shield presented by the city of Berlin to Friedrich Wilhelm IV. Over the central door was built in the time of the earlier monarchs a gallery of solid silver, and on the sideboard, elaborately carved, is the massive gold and silver plate which adorned the tables of the first Prussian kings. From the ceiling is suspended the crystal chandelier beneath which stood Luther at the diet of Worms. Among other apartments worthy of mention are those where foreign princes are entertained, and the suites of the emperor Wilhelm II, formerly occupied by Frederick the Great Adjoining the white salon, with its chaste columnar and mural decorations and its marble statues of the twelve electors, is the palace chapel, adorned with frescos on a ground of gold, and with walls and pavement, altar pulpit and candelabra of Egyptian and other marbles.

In the picture gallery are portraits and scenes pertaining to Prussian history, and elsewhere are many excellent paintings of the French and Netherlands schools. Finally, the palace has its ghost—the white lady—whose appearance, as tradition relates, foretokens the death of some member of the royal family.

In the quarter known as Charlottensburg, an independent municipality but practically a portion of Berlin, is another Royal palace composed of a group of buildings one-third of a mile in extent. The central and oldest portion was completed in 1707, a wing being added some thirty years later, while the theater was erected in 1788. Its beautiful gardens, laid out in the finest style of landscape art, are open to the public, with whom they are a favorite promenade. Beyond them is the mausoleum where Kaiser Wilhelm I lies at rest, side by side with his parents and the empress Augusta. The figures in marble are among the finest of Ranch's compositions, that of the queen at once establishing his fame as a sculptor. Of the apartments of the palace the most interesting is the porcelain chamber where is a handsome collection presented by English merchants to Queen Sophia Charlotte. Among other palaces in Berlin are those of Prince Albert, of the princes Alexander and George, of Prince Leopold, and of the Princess Frederick Charles. Nor should we forget the plain but spacious mansion of Von Moltke, with little attempt at architectural embellishment; for as with Bismarck, the great Prussian strategist was not given to display.

There are two royal museums in Berlin, the old and, the new, the former on the Lustgarten, facing the castle and connected with the other by a covered corridor. The old museum erected, according to the inscription on its frieze by Friedrich Wilhelm III, for the study of all branches of antiquity and the liberal arts, is one of the largest and most imposing structures in Berlin, covering an area of 47,000 square feet. It is of Grecian architecture, with a portico of tall Ionic pillars approached by a spacious flight of steps, where are the famous equestrian groups of the Amazon by Kiss and of the Lion-slayer by Albert Wolf. On the walls of the portico are represented in symbolic figures the evolution and progress of the world from chaos to organic and developed life. Above the central portion of the building are colossal groups in bronze, and in front and in the vestibules is a profusion of statuary and frescos.

The gallery of antiquities, founded by Frederick the Great with the collection purchased from Cardinal Polignac, contained little of merit until the acquisition in 1879 of the Pergamum sculptures and later of the Saburow collection of Attic masterpieces. Worthy of note are the friezes of the altar of Zeus unearthed from the ruins of Pergamum, and more than 2,000 years old, the altar being erected in honor of a victory over the Gauls outside the city gates about 180 BC. Classical authors and heroes are plentiful, as also are the gods and demi-gods of ancient Rome and Greece. Demosthenes Herodotus and Euripides are here, and here are Scipio Africanus and Julius and Augustus Caesar, side by side with Apollo Venus and Athena. There are also sculptures of the Christian era, and in one of the chambers are chimney-pieces of Italian marble richly embellished, together with a number of small bronzes by Donatello and other famous artists. In the cabinet of coins are more than 200,000 specimens, Greek, Roman oriental mediaeval and modern, $150,000 being paid for two of the Greek and Roman cabinets. There are collections of Italian and German medals, the former dating back to the Middle Ages, and once the property of the grand duchess of Tuscany.

As a nucleus for the picture gallery was purchased in 1821, from an Englishman of that name, the Solly collection, the price being $550,000, and to this was added in 1874 the Suermondt collection for $250,000. Meanwhile additions were made, and are still being made, from many nations and from many schools, thus giving to the Berlin gallery its worldwide repute. While containing a leaven of masterpieces more than sufficient to raise it above mediocrity, the value of this gallery consists rather in its catholicity of style and era than in works of superior merit. Yet these are not few, and especially the works of early Italian, Dutch, and Flemish painters, though German, French, and Spanish art are also freely represented. Fra Angelico has here his 'Last Judgment.' Verrocchio his 'Madonna.' and Vivarini his altar-piece, the last however comparing feebly with the great winged altar-piece of the Van Eycks and with Leonardo da Vinci's altar-piece of 'The Resurrection.' Correggio has his 'Leda,' one of the finest of his compositions; there are four of Raphael's canvases, and a few of Titian's portraits. Holbein's portrait of the merchant Gisze is one of the gems of the German collection. Albert Durer has several pictures, one of which, the Holzschuher portrait, was purchased in 1884 for $87,500. Peter Paul Rubens and his school are also represented the ' Rescue of Andromeda', and 'Diana at the Chase' being excellent specimens of his mythological studies, while Rembrandt with his scriptural subjects and Jacob von Ruysdael with his landscapes give tone to the Dutch school, of which in its formative period Frans Hals is an able exponent.

In architectural features the new museum does not compare, with its sister institution the exterior, being almost as void of taste as a United States government building, and this is saying much. It is redeemed, however, by its rich internal decorations so elaborate and artistic as to attract more

attention than that which it contains. On the upper walls of the staircase are Kaulbach's series of mural paintings representing the great epochs in the history of the human race, from the confusion of tongues to the reformation. Arranged in twelve salons is a collection of casts of classical and mediaeval statuary, and there is a hall devoted to casts of German sculptures. In the Assyrian chamber are alabaster slabs representing in relief the monarchs and demons, the scenes of the battle and the chase as depicted in the Nimrud palace. There is also a Babylonian chamber, and one devoted to the antiquities of Asia Minor; hut the Egyptian museum is of most importance, especially for the additions contributed by Lepsius in 1848.

The cabinet of engravings and wood cuts extending from the fifteenth to the nineteenth century is one of the largest in the world, and includes many treasures from the famous collection of the duke of Hamilton, though perhaps its choicest treasure is a copy of Dante with illustrations executed by a Florentine artist in 1510. The antiquarium is filled with bronzes, terra-cottas, and vases, the last of great artistic value, especially in relation to Grecian art, for most of them were unearthed in the cities of Magna Graecia.

But that which is of most interest to the average visitor is the collection of gems and objects fashioned in the precious metals. In one of the cabinets is a cameo, nine by eight inches, representing the apotheosis of the emperor Severus. It was purchased for $9,000 and is classed as one of the most valuable in Europe. There is a suit of golden armor made for a Scythian chief, and there are antique golden ornaments from the Sabine mountains, with the silver plate discovered near the town of Hildesheim, near which was a Roman colony in the days of Augustus Caesar.

Among other museums in Berlin is the one used for ethnographical collections, a massive pentagonal structure on the ground floor of which is a portion of the Trojan remains unearthed by Schliemann. In the Industrial museum are displayed the manufactured products of many ages and countries, especially their art manufactures. In a collection of objects in which fire is not used are Gothic carvings in wood and mediaeval carvings in wood and ivory, with a chamber organ handsomely decorated, and Flemish and other tapestries interwoven with gold. There are also the richest of paneling and furniture of every pattern and date; there are beautiful specimens of enamel work, including some of the rarest specimens from Limoges belonging to the fifteenth century; there are textile fabrics of all descriptions, and pottery, porcelains, glassware, and metal work are liberally represented. In the goldsmith's art there is a rich service of antique plate, purchased for $165,000 and manufactured in the town of Luneburg several hundred years ago. There is silverware made by the most expert German craftsmen of the renaissance period, and there is church plate, both silver and gold belonging to the middle ages. There is also a collection of precious stones, and in a richly wrought cabinet made in 1617 for the duke of Pomerania are the choicest productions of Augsburg workers in gold.

The National gallery, designed as a Corinthian temple, stands in the midst of a square adorned with statuary and encircled with colonnades. It is a spacious and sightly structure, and in front of its portico are some excellent sculptural effects, including Calandrelli’s equestrian statue of its founder. The decorations of the interior are appropriate and rich, and the nucleus of the collection, some 250 pictures bequeathed to Wilhelm I during the time of his regency, has since been largely increased.

The Jewish synagogue is one of the finest specimens of ecclesiastical architecture. It is of oriental design, a gilded dome 160 feet in height rising above the narrow facade which somewhat mars its

symmetry of outline. The interior, entered by doors of bronze separated by granite columns, is richly decorated with paintings and statuary, over which stained-glass windows shed a dim religious light. The oldest church is that of St. Nicholas, whose towers, choir, and nave date from the thirteenth to the fifteenth century, though with recent restorations.

The Jerusalemerkirche is a conspicuous edifice, as also are the churches of St. Michael and St. Thomas, both showing the combination of Romanesque designs with renaissance details which of late has found favor in Berlin. In all this great metropolis, with a population of nearly 2,000,000 souls, there are not more than 80 churches and chapels of all denominations; yet these, it would appear, are more than sufficient, for they are never overfilled, and seats are always at the disposal of those who are crowded out of beer gardens and beer saloons.

Among the business buildings of the metropolis, the borse is one of the most imposing, and also one of the first modern structures in which stone was used in place of brick. It is rich in columnar and sculptural decorations, the latter in the form of allegorical groups and figures. Passing through the ante-chamber with its statue of Kaiser Wilhelm I, we enter one of the largest halls in Europe devoted to business purposes, 340 feet in length and 90 in width, arcades dividing it into sections for the use of various branches of trade. Here and in the gallery are several thousand people during business hours, of which there are only two in the day. Another massive edifice is the Reichsbank, which may also be termed the bank of Prussia. It is a neat composition of the renaissance order, almost classic in simplicity of design.

The interior is richly decorated and above the main facade is Franz group of Germania protecting commerce industry and navigation. The rathhaus, like many other of Berlin's public buildings, is a composite structure of mediaeval outline but with renaissance details. In its tower, which is 245 feet in height, is one of the largest clocks in the world, with a dial-plate 15 feet in diameter, and in the main corridor are stained-glass windows with the arms of fourscore Prussian towns. The Festsaal, adjoining the council chamber, is the finest of its halls, with oaken doors elaborately carved and with massive candelabra depending from its coffered ceiling.

Except perhaps Paris, no city in the world is richer than Berlin in monumental and sculptural decorations. Of several I have spoken, as of Ranch's equestrian statue of Frederick the Great, one of the grandest monuments in Europe. In the Wilhelmsplatz, facing which is the palace of Prince Frederick Leopold, are represented in a group the generals who fell in the Silesian wars of Frederick the Great. In the Konigsplatz is Strack’s monument of victory, a magnificent column nearly 200 feet high, the gilded figure at the top being 40 feet in height. On its massive pedestal are reliefs in bronze commemorating the triumphs of 1870-1871, with those of earlier campaigns. In the Kreuzberg a gothic obelisk calls to mind the hard-won victories of 1813-1815. On the Kurfiirsten-brucke, leading to the old town, is a bronze equestrian statue of the Great Elector, a masterly composition, notwithstanding that its subject, with his Teutonic features and curly wig, appears at a disadvantage in his Roman garb. The Lion group in one of the public parks is finely modeled; but it is a somewhat over-scornful lion. In the Thiergarten are handsome marble monuments of Friedrich Wilhelm III and Queen Louise, their pedestals lavishly decorated with figures in relief. Not far away is the Goethe monument, the main figure standing forth in majestic outline and with allegorical figures of poetry and music at the base. In front of the Schauspielhaus, one of the principal theaters, is the Schiller monument, also with emblematic figures on the pedestal. Opposite the chamber of the Prussian

deputies is a monument to Baron von Stein, the figures and reliefs on the pedestal representing wisdom, courage, truthfulness, and piety. Elsewhere in the streets and squares the churches, and cemeteries of Berlin, is preserved in marble and bronze the memory of the monarch's statesmen, warriors, the men of letters, science and art whom the nation loves to honor.

Potsdam, almost near enough to Berlin to be included among its suburbs, has long been a favorite summer residence for German emperors and Prussian kings. The German Versailles it is styled, and well is the title deserved, for it is a city of palaces parks and pleasure-grounds, but a sleepy city withal, with no stir of business except for a few small manufactures, though of some political importance as the capital of the province of Brandenburg. It was but a village until the Great Elector established there his headquarters, building for himself a stately mansion surrounded with gardens and groves. But to Frederick the Great was due the inception of its modern splendor and for him was built, the palace of Sans Souci, and the New palace, now no longer new, with a number of residences for those whom he would have around him.

The park of Sans Souci was also made by Frederick, though enlarged by Friedrich Wilhelm IV.

It is laid out in the formal style of the period and somewhat over decorated with fountains and statuary, even artificial ruins being added for effect. The palace itself is but of one story, with lavish exterior embellishments in doubtful taste; yet there it was the great monarch loved to dwell. His apartments are preserved almost intact, and there are many things to remind us of the great warrior; the chair in which he died, the clock which stopped, as is said, at the moment of his death, and the only portrait for which he would consent to sit. The New palace, the former residence of the crown prince of Prussia and now the summer residence of the reigning emperor, is a massive brick structure, erected at a cost of $2,250,000, but of little architectural merit. It contains about 200 apartments, one of which, known as the shell saloon, is inlaid with shells, and its frieze adorned with precious stones. There is also a theater with accommodation for both of several hundred spectators, a concert chamber and a ballroom, them decorated in pictorial art.

The Royal palace is another extensive building without structural features worthy of note. The chambers formerly occupied by Frederick are hung with pictures by Watteau and other eminent artists. Here also, as in the New palace, are numerous relics, including his autograph notes, his writing-table, much stained with ink, and the cabinet with double doors where at times he dined with his friends beyond hearing of his attendants. Still another mammoth edifice is the Orangery, a palace of the Florentine order nearly a quarter of a mile in length and with statues in all the openings of its interminable facade. In front is a statue of Friedrich Wilhelm IV, and on the terrace are columnar statues of Flora and Ceres, with the group of the Farnese Bull. In the Raphael salon are many copies from the great master, with statuary by eminent German sculptors. In other apartments, and especially in the malachite saloon, there are also valuable works of art.

The Lustgarten, the Wilhelmsplatz, and other public pleasure-grounds are lavishly adorned with statues and busts of no artistic value. The park of Sans Souci is the favorite lounging place, an avenue leading to it from the Brandenburg gate, erected in 1770 in the form of a triumphal arch. At its entrance is the Friedenskirche, built in the style of the early Christian basilicas. At the foot of its clock-tower, 130 feet in height, are some choice Italian sculptures, and in the atrium are Rauch's group of 'Moses' and an excellent copy of Thorwaldsen's 'Risen Christ.' The interior is somewhat bare of

aspect, though relieved by its Ionic columns of black marble, and by the mausolea of Friedrich IV and his wife, the angel guarding the tombs being one of Tenerani's compositions.

West and a little to the south of Berlin is Magdeburg, the capital of the province of Saxony, and one of the strongest of German fortresses. From a small trading settlement in the ninth century, when Otho I established there a Benedictine convent, it has developed into one of the foremost of Saxon cities, but not without many reverses, especially during the Thirty Year's war, when Tilly burned the city to the ground and massacred its inhabitants without regard to age or sex.

It is an historic city, and has been the home of many eminent men. Carnot, for instance, ending his days there in exile, and Luther when a schoolboy singing in its streets for his daily bread. The cathedral, erected in the thirteenth and fourteenth centuries, but with modern restorations, is a magnificent specimen of Gothic architecture blended with the Romanesque. Within are the tombs of Otho the Great and his wife Editha, to whom one of the chapels is dedicated, and a monument to Archbishop Ernest, by Peter Vischer, a famous Nuremberg sculptor. A still more ancient edifice is the Liebfrauenkirche, or church of Our Lady, a cruciform basilica dating from the twelfth and thirteenth centuries. Worthy of mention also is the equestrian statue of Otho the Great in front of the rathhaus, with allegorical and other figures, including those of the duke of Saxony and the margrave of Brandenburg.

Passing southward we come to Leipzig, a city of 375,000 people, the seat of the supreme courts of the empire, a literary and musical center, and next to Hamburg the most important commercial city in Germany. First known as a Slavonic settlement under the name Lipzk, that is to say the town of the lime-trees, it was here that the emperor Heinrich I built his castle about the year 920. During the latter half of the twelfth century it passed into the possession of the margrave Otho the Rich, and gradually developed into a flourishing town. Situated in the midst of a fertile plain intersected by the great highways of Europe, its trade was largely increased by the great fairs held there thrice a year, and still attended by 40,000 or 50,000 merchants and tradesmen from every quarter of Europe and from several Asiatic countries.

While their relative importance has diminished with the growth of facilities for communication, the actual volume of transactions has steadily increased, now probably exceeding 560,000,000 a year. Of still greater importance is the book trade, the largest in the world, surpassing London or Paris in number and value of sales. There are at least 700 booksellers and publishers in Leipzig, placing on the market at a moderate estimate 3,000 new works a year, while thousands of European firms are here represented by agents, members of the trade meeting annually during the jubilate or Easter fair to settle their accounts in their own exchange—the Buchhandler-borse.

The university of Leipzig, funded by a secession of students from Prague early in the fifteenth century, is one of the largest and most famous in Europe, with 4,000 pupils, 200 professors, and a library of 400,000 printed volumes and 5,000 manuscripts. The museum, opposite the New theater on the Augustusplatz, contains a collection of modern paintings representing several schools. There is also an industrial museum whose contents are rapidly increasing in importance. The Marktplatz is surrounded by lofty and antiquated buildings, among which the rathhaus is one of the most ancient. On the northern face of the square is Siemering's War monument, surmounted by a figure of Germania, and with Wilhelm I seated on its pedestal surrounded by his generals on horseback. The Reformation monument was unveiled on the 400th anniversary of the birthday of Martin Luther, who

once preached, as is said, from the stone pulpit of the Nikolaikirche, a sixteenth century edifice, and except for the Paulinerkirche, completed in 1240, the oldest in Leipzig.

Few German cities are richer in historic and modern interest than Dresden, since 1485 the capital of the Saxon kingdom and the residence of Saxon monarchs, though more than two centuries before that date it had become a place of note as the headquarters of the margrave Henry the Illustrious. But it was in the days of Frederick Augustus I and II, electors of Saxony and kings of Poland, that the town began to assume its present aspect. Augustus I, better known as Augustus the Strong on account of his physical powers, succeeded to the throne in 1694, and after many wars, in which he acquitted himself with credit, gave himself over to a career of dissipation. His court became famous as the most dissolute and luxurious in Europe; his revenues were squandered, and his capital enriched at the expense of his kingdom with the choicest treasures of art. At the time Saxony was a prey to the most unscrupulous and depraved of either sex, the minister Flemming, for example, bequeathing at his death $16,000,000; while the countess Cosel, the king's favorite mistress, wrung from him $20,000,000. In the green vaults, as the royal treasury was called, were dazzling heaps of precious stones, of gold and silver, an entire chamber being filled with pearls, with pillars of ostrich eggs, and with curious and costly objects of art manufacture, one of them, in which the figures were carved out of single pearls of enormous size, representing a harlequin in the act of belaboring a peasant.

In the Memoirs of the margravine of Bayreuth, and in Baron von Pollnitz' Gallant Saxon, are descriptions of the fetes given at the time in honor of foreign princes and other guests. At Moritzburg there were festivals of Venus, Diana, and Neptune in the pleasure-grounds, the forests, and on the Elbe, the last including a procession of gondolas and brigantines, with sailors attired in silks and satins. There were also tournaments, masquerades, and fancy balls, in which the entire court and even court menials and common soldiers participated, transforming the country round into the scene of a theatrical display, or rather of theatrical buffoonery. At Muhlberg $6,000,000 was wasted on a single entertainment; at Dresden was a hall stored with ostrich and other plumes for occasions of festivity; for an allegorical picture were used 6,000 ells of cloth, and for an exhibition of fireworks 18,000 trunks of trees.

Augustus the Strong died in 1733, leaving many mistresses, and of children some 350, of whom his successor, Augustus II was the only legitimate son. By his favorite minister Bruhl, rather than by himself, was continued under the new elector the old system of extravagance and dissipation. In addition to vast estates, Bruhl received a yearly stipend of $50,000, and with this he held his court in royal fashion palace almost adjoining that of the king. The sons of nobles contended for the privilege of entering his service as pages, for upon those who served him were conferred the most honorable and lucrative offices.

Nearly all the supplies for his household and wardrobe were obtained from Paris; his suits of attire were numbered by hundreds, and he had an entire cabinet filled with Parisian perukes. To supply himself with funds he laid hands on everything that came in his way, even to the property of his wards, levying forced contributions on bankers and wealthy merchants, and giving them in return notes which could not be negotiated. Finally he was a traitor to his king and country, selling them to the highest bidder.

Still in existence and among the favorite promenades is the Bruhl terrace, laid out as a garden in 1738, and commanding one of the finest views of the Saxon capital, nestling amid avenues of trees in the

center of a fair and fertile valley. The Royal palace, founded by Duke George in 1534 and surmounted by the highest tower in Dresden, was enlarged by Augustus the Strong into a huge and irregular edifice without regard to symmetry of design. The interior is even more lavishly decorated than in the days of which I have spoken, the ballroom containing scenes from Greek mythology, while in the banquet hall are many historic paintings, and in the chapel are masterpieces by Rembrandt. Guido Reni, Caracci, and Nicolas Poussin. The green vault yet contains one of the most valuable collections of jewelry, trinkets, and curiosities in the world, together with Limoges enamels, ivory carvings, crystal cuttings, and many specimens of ancient goldsmiths work. In the chamber of jewels there is a bow containing 660 diamonds, besides a series of weapons arranged with reference to the number of precious stones with which they are adorned. There is a golden tea-service; there are gold chains of many varieties; set in a hat-clasp is a green diamond more than 40 carats in weight, and an onyx more than seven inches in length is the largest in existence, so far as is known. Finally, in a group in enamel and gold of more than 130 figures resting on a silver plate, 15 feet in circumference, is represented the court of the grand mogul at Delhi. From the Japanese palace, where is now a library of 350,000 volumes rich in classic and historic literature, a collection of porcelains worth more than $1,000,000 has been transferred to the Johanneum museum, which also contains historic cabinets with many interesting relics.

But all the manifold attractions of Dresden sink into insignificance when compared with the art treasures contained in the picture gallery founded by Augustus the Strong, and now, under the name of the Dresden gallery, ranking with the Louvre, Uffizi, and other world-famous collections. It is contained in the museum completed from Semper's designs in 1854, of the German school; a powerful subject is Franz Defreggers ' Scythe-forging for Tyrolese Insurgents; Von Leypold has the 'Old Bastion' and 'In the Mountains,' and Richter some of his most finished genre sketches, among which is 'A Northern Home.'

The collection of engravings, of which there are about 450,000, illustrates the progress of this art from the earliest to the present time; and so with the casts, which show the development of plastic art beginning with the days of the Egyptians.

The Royal academy of art was founded in 1764 and in the Bruhl palace are held the exhibitions of the Saxon art union, one of the many art associations of Dresden, which is also well supplied with scientific and educational institutions. The Hof theater, covering more than a acre of ground, is one of the finest in Europe, the entrance in the semi-circular front being in the form of a castellated portico surmounted by a bronze quadriga. In the Grossergarten is a summer theater with a chateau containing a museum of antiquities, near which is a fine zoological garden. Of the bridges that span the Elbe the Alsenbrucke is one of the most massive, and the oldest is the Augustus bridge of thirteenth century date. Statuary is almost as plentiful as in the streets and squares of Berlin, among the finest specimens being the marble statue of Germania with allegorical figures on its pedestal. Of churches the most ancient is the Sophienkirche, a Gothic structure erected in the thirteenth century, but with recent restorations. The Frauenkirche, or church of Our Lady is a handsome edifice with rich interior decoration, the lantern of its dome rising more than 300 feet above the pavement. In the platz in front is the Luther monument, a bronze cast from the original statue erected at Worms.

Gotha, a few miles from the Thuringian forest, and forming with Coburg the residence of the dukes of Saxe-Coburg, was first known as a town in the twelfth century, when the abbot Gotthard, after whom

it is named, surrounded with walls the village founded in the days of Charlemagne. On a hill more than 1,000 feet in height stands the castle of Friedenstein which Ernest the Pious completed in 1654. It is a huge and unwieldy structure, remarkable only for its contents, which include a library of 200,000 volumes and a cabinet of 75,000 coins.

To the museum on its southern terrace have been removed the picture gallery, the collection of 100,000 engravings, the 22,000 specimens in natural history, the casts and minerals, and the many Egyptian, Roman, and other antiquities formerly contained in the castle. Coburg has also its castle, where in 1530 Luther resided while translating the Prophets and the Psalms. Here also is Rosenau castle, the birthplace of Prince Albert, and one of the summer residences of the duke of Edinburgh.

Nuremberg, the commercial metropolis of southern Germany, and formerly one of the richest of the free imperial towns, has retained more than any other German city its mediaeval aspect, its ancient gateways and bridges, its narrow, tortuous streets, its antiquated dwellings, and even the walls and moat constructed in feudal times. Overlooking the town on its northern side is the Kaiserburg, a twelfth century castle with modern restorations, formerly the residence of German emperors and still used as the abode of royalty. Among many interesting churches the finest are those of St. Sebald and St. Lawrence, of which Aeneas Sylvius speaks, the shrine of the former with its statues and reliefs executed by Peter Vischer being one of the finest specimens of German art, while in the latter is a Gothic spire, the workmanship of Adam Krafft, remarkable for the delicacy and minuteness of its carvings.

In the rathhaus are frescos by Albert Durer, of whom there is an imposing statue in the Albrecht-Durerplatz, and in the Alderstrasse is the warriors' monument, a granite column surmounted with a figure of victory, not far from which is a sixteenth century fountain with numerous figures in bronze. In the Germanic national museum are displayed in more than eighty chambers valuable collections of antiquities and historic sculptures and paintings.

Munich, originally the Villa Munichen, first became prominent in the days of Henry the Lion, who built there a custom-house and one of the first of German mints. In 1255 it became the capital of Louis the Severe, and, destroyed by fire in 1327, was rebuilt by Louis the Bavarian almost as it stood at the opening of the present century. Its better buildings, streets, and parks are of modern date, though with little of contrast or local coloring, all of the more costly edifices being copies of famous prototypes; so that it has been said, "One may study in Munich the architecture of 2,000 years." Yet in architectural grandeur the city ranks foremost among the minor capitals of Europe, while as a center of art, though of recent growth, it compares with Dresden and Berlin.

The finest buildings are for the most part on the Maximilianstrasse and Ludwigstrasse, both named after the monarchs by whom they were constructed. On the former are several palaces and theaters, the government buildings, the mint and the National museum, while at its eastern extremity is the Maximilianeum, a spacious edifice for the education of civil servants, its interior containing panoramic paintings of great scenes in the history of the world. Among the buildings on the Ludwigstrasse are the palaces of Prince Luitpold and Duke Max, the war office, the Odeon, and the Royal library, one of the largest in the world, with 1,300,000 printed volumes, 35,000 manuscripts, and the national archives of Bavaria in 550,000 documents. In the Marienplatz, in the center of the ancient quarter, are the old and new rathhouses, the latter one of the finest town halls in southern Germany, richly decorated with frescos, statues, and stained-glass windows. Here also is the cathedral

with its lofty tower, a plain structure of the later Gothic, and of little interest except for its stained-glass windows, more than 60 feet in height. The Thai, a broad thoroughfare leading from the platz, terminates in the Isarthor with its sculptured frieze and pediment, and another beautiful gateway is the Propylsea, on the spacious Koenigsplatz.

In the Munich galleries of art are represented all the principal schools, being especially rich in the works of German, Dutch, and Flemish artists; but as they differ but little from other famous galleries previously described in these pages, it is unnecessary here to enter into detail. The old Pinakothek, or picture repository, is devoted chiefly to the old masters, and in this building, 500 feet long and representing somewhat the Vatican in design, is an enormous collection of engravings, drawings, and vases. In the new Pinakothek are modern paintings, though here also are Greek and Roman antiquities, and in the Glyptothek are sculptures and statuary from those of the Assyrian period to the works of Ranch and Thorwaldsen, including the famous Aeginetan marbles, among the finest specimens of archaic sculpture.

In the immense collections of the Bavarian national museum is illustrated the progress of industry and industrial art in all their branches and among all nations from prehistoric eras to the present time. From chambers devoted to the Stone Age and to the earliest workers in iron and bronze we pass by degrees to the Middle Ages, and thence to the renaissance and modern times, forming together the most complete and well proportioned exhibition of its kind in existence. Worthy of mention are the jewel casket from Bamberg cathedral, the robes of Bavarian sovereigns, the tapestries laces and embroideries, the ivory carvings, the vessels in Limoges enamel, the cabinets of silver and lapis lazuli, and those which are inlaid with tortoise-shell and mother-of-pearl. In the Ethnographic and other museums, and in the academy of Science, are other valuable collections, while at the head of educational institutions is the University, with 3,500 students.

Turning westward toward the Belgian frontier may first be mentioned Aix-la-Chapelle, or as in the German, Aachen. It is an historic town of Roman origin, and was the favorite residence of Charlemagne, who ended his days in the palace on the ruins of which was built the rathhaus with its magnificent coronation hall, where till the accession of Ferdinand I were crowned the German emperors. Here in this "free city of the holy Roman empire" were deposited the insignia of royalty now preserved in the imperial treasury at Vienna, and here several congresses and treaties changed the map and regulated the affairs of Europe. Yet in appearance it is a thoroughly modern town well built, and with the stir of business in its streets. The cathedral, its principal building, consists of two parts, distinct as to style and date. The older portion, originally the chapel of Charlemagne, burned by the Normans and restored by Otho III, is in the form of an octagon, terminating in a cupola and supported by massive pillars. In the gallery of the octagon is the imperial throne, composed of the marble slabs on which rested for nearly four centuries the remains of Charlemagne until his tomb was opened in the year 1000; for that was believed to be the final year of the world’s existence. The choir added in the fourteenth century, is an elegant composition, indicating a large and prosperous settlement.

The seat of a bishopric in the fourth century, it was raised by Charlemagne to an archbishopric, his chaplain Hildebald, building the old cathedral church and presenting it with a library which still exists.

The cathedral of Cologne is one of the purest as well as one of the most magnificent of Gothic edifices. It was the work of many centuries and of many and of many thousands of hands to give expression to this wondrous conception of genius. From plans drawn by Meister Gerard the foundation stone was laid in August, 1248; but the work progressed slowly, and it was not until 1322 that even the choir was consecrated, the nave and transepts belonging to the fifteenth century, at the end of which a roof was placed on the unfinished building, for all hope of completing it according to the original design was then abandoned. Gradually the building fell into decay; the lead was taken from the roof, and in 1796, during the French occupation, it was converted into a barn. But presently the kings of Prussia came to the rescue, and the work of restoration, begun in 1823, was continued at intervals until 1880, at a total cost of more than $5,000,000. On the 15th of October in that year its completion was celebrated in the presence of the emperor Wilhelm I and the sovereign princes of the empire.

It is a cruciform structure, 480 feet in length and 280 in width, its huge facades relieved by a profusion of turrets, buttresses, cornices, and gargoyles, and surmounted by the loftiest towers in Europe, more than 500 feet above the pavement. Of the interior, which covers more than an acre and a half of ground, the effect is extremely impressive, and the more so for its numerous and handsome stained-glass windows, the largest of which, over the western portal, was presented by Friedrich III. The cathedral is rich in columnar decorations, those above the southern entrance being the gift of Wilhelm I, carvings, statuary, paintings, frescos, and reliefs. In one of the choir chapels is the shrine of the kings, richly adorned with gold and precious stones; in others are monuments of the archbishops of Cologne; and especially fine is the mosaic pavement of the ambulatory with the armorial bearings of the electors. In the treasury are many priceless relics, including a sixteenth century osculum pacis and a seventeenth century monstrance, both glittering with pearls and precious stones, also the silver shrine of St. Engelberl and the golden reliquary of the magi, probably of twelfth century workmanship.

Other church buildings in Cologne are famed for their antiquity and for their monuments and works of art, St. Peter's, for example, containing above its high altar Ruben's famous painting of the crucifixion of the apostle, while in the Golden chamber of the church of St. Ursula is the reliquary of the saint who, as tradition relates, was murdered at Cologne with thousands of virgin attendants.

Of secular buildings the rathhaus is one of the most interesting, the older portion dating from the fourteenth century, and built on the substructure of a Roman fortress. In the Hanssaal, or Hanseatic hall, where was probably held the first meeting of the Hanseatic league in 1307, are the figures and armorial bearings of many heroes and monarchs. South of it is the Gurzenich, completed in 1452 by the town council which expended thereon 80,000 florins, using it as a banqueting hall for the entertainment of distinguished guests. Here also met the German diet, and at some of the festivals royalty itself was present. The archbishop's palace is a handsome edifice and there are several literary and scientific institutions with three large theaters, and beyond the walls zoological and botanical gardens. Connecting Cologne with its suburb of Deutz on the opposite side of the river is a bridge of boats, some 1,400 feet in length, and near the cathedral an iron bridge is built across the stream, with a double line of rails and accommodation for ordinary traffic.

Bonn has become of late a favorite resort for visitors, with its handsome villas and gardens fronting on the banks of Rhine. It is an historic town, the site of a Roman fortress and military settlement frequently mentioned by Tacitus and probably founded by Drusus. In the middle of the thirteenth

century it became the residence of the electors of Cologne, gradually increasing in importance, especially from the time when archbishops there held their magnificent courts, though not restricted to any one city; for these spiritual lords rivaled the princes of the land in luxurious living. The archbishop of Salzburg, for instance, surrounded himself with courtiers and chamberlains in his chateaux of Klessheim and Hellbrunn, where were theaters and menageries, parks and pleasure-grounds, fountains and grottos, with a profusion of undraped statuary. At a fete held in 1699 in honor of the wife of King Joseph, Archbishop Ernest ordered a grand battue, at which wild beasts were torn to pieces by hounds, the entertainment concluding with a ball and the presentation to the queen of a silver table and a costly mirror.

The Episcopal cellars, named after saints self-devoted to a life of abnegation, were filled with the richest of meats and the choicest vintages of the Rhine. Nor were the priests behind their superiors in the display and abuse of wealth; riding in gilded carriages drawn by six horses and attended with a train of cavaliers, lounging in the boudoirs of mistresses, and reclining at banquets where fingers glittering with diamonds were extended in benison over the feast provided for an order vowed to poverty.

The present town of Bonn contains some 40,000 inhabitants apart from its adventitious population. An electoral palace, completed about 1720, is now occupied by the university where are several faculties and some 1,400 students, who give to the town what little life it possesses. The library has 250,000 volumes, and there are antiquarian and natural history museums, an observatory and other departments in this famous seat of learning where many eminent men have studied and taught. The Munster is a cruciform church in the transition style of the later Romanesque, with a lofty octagonal tower above the intersection of the cross. In the platz on which it fronts is a statue of Beethoven, the house in which the great composer was born being converted into a museum. Not far away is the Marktplatz, with its columnar fountain erected in honor of one of the last of the electors.

Coblentz, which the Romans called Confluentes, or flowing together, whence its modern name, is a strongly fortified town of triangular shape at the junction of the Rhine and Moselle, with 26 forts and fortified camps sufficient for an army of 100,000 men. Though never a large town, it has been a place of importance since Drusus established there a military post a few years before the opening of the Christian era. In the middle ages it was the residence of the Prankish kings, and is now the capital of Rhenish Prussia, among its most ancient buildings being the castle of the electors of Treves erected in 1280, and now used for the manufacture of Japan-ware. In the Royal castle, or palace, built for the last of the electors are valuable works of art and art manufacture, including the Gobelins tapestries presented by Louis XVI to Frederick the Great. In the church of St. Castor built, in the early Lombard style by Louis the Pious, the sons of Charlemagne, meeting in 843, partitioned their empire into the three divisions of Germany, France, and Italy. The Liebfrauen-kirche is a fine specimen of mediaeval church architecture; and among other historic structures is the mansion of the Metternichs, where the great Austrian statesman was born in 1772. As a free port Coblentz has an extensive trade, especially its water traffic; a massive stone bridge first constructed by the elector Baldwin in 1344, spanning the Moselle, while a handsome railroad bridge with three iron arches, each with a span of 120 feet, leads to the opposite bank of the Rhine. A little further up the stream is "Fair Bingen on the Rhine", opposite to which, on a spur of the Niederwald, a wooded and vine-clad hill nearly 1,000 feet in height, is the national monument commemorating the foundation of the new German empire with a

handsome statue of Germania holding the imperial crown, with the portraits of generals and the figures of departing and returning troops who fought in the war of 1870-1871.

To the eastward lies the city of Wiesbaden, with its royal palace and its famous springs visited annually by 100,000 patients and tourists; for both waters and climate are healthful and the accommodation is of the best.

Not far away is Frankfort-on-the-Main, in the midst of a spacious and fertile valley fringed with orchards and woodlands. Of this great commercial and financial center, whoso very atmosphere is redolent of wealth, the first mention is in the eighth century, when it became the seat of an ecclesiastical council, the Carlovingian monarchs later holding councils there. In the Middle Ages it was famous for its fairs, and later suffered many tribulations, especially in 1796 when bombarded by Kleber, who exacted a ransom of 8,000,000 francs: and again in 1848, when the Prussians imposed a fine of 6,000,000 florins. Nevertheless it prospered, and grew rich in culture as well as in material possessions, few cities of its size being so well supplied with institutions of science, literature, and art. The streets and squares are handsome, and adorned with the monuments of eminent men; as of Gutenberg and Goethe, the central figure in the former flanked by those of Fust and Schoffer, beneath which are allegorical figures of industry, science, poetry, and theology.

Since the removal of the ancient fortifications, new suburbs have been built in all directions, and in the old quarter a transformation has been wrought, quaint mediaeval buildings and intricate narrow streets disappearing with the progress of modern improvements. Yet there remain many interesting structures, among them the former home of the Rothschilds, a plain and dingy tenement on the Judengasse, or Jews' street.

The cathedral, founded by Louis the German in 882, was rebuilt in the Gothic style in the thirteenth century, with later enlargements and renovations; for there was solemnized the coronation of the German emperors. Almost destroyed by fire in 1867, it was restored as far as possible from the original designs and with handsome interior decorations. Among other churches that of Leonhards, with a stained-glass window by Hans Holbein is the most ancient. To Johann Friedrich Stadel the Art institute owes its existence and its celebrity in the artistic world; this wealthy citizen of Frankfort bequeathing for the purpose his collection of paintings and engravings, his real estate, and 1,200,000 florins in money. The Bethmann museum contains among its choicest works Dannecker's 'Ariadne,' and the original model of Thorwaldsen's 'Alexander the Great.' In the Rothschild museum is a magnificent display of ancient gold and silver plate, of gems and cameos, of enamels and pique work in tortoise-shell, and of carvings in ivory and wood. In the town library, with 250,000 volumes and many Abyssinian and other rare manuscripts, are a Gutenberg Bible of 1455, and the autographs of Luther, Wallenstein, Melanchthon, Schiller, and others of historic and literary fame. The opera house, with its imposing facades and profusion of sculptural and mural decorations, ranks among the finest in Germany. In the Romer, or rathhaus, the former name suggestive of historic associations, is the chamber where the emperors were elected, and the hall where the coronation festivities were held. Hospitals and other charitable institutions are numerous; and there are zoological and other gardens, most beautiful of which is the Palmengarten, planted with the palms which formed the collection of the duke of Nassau.

At Darmstadt, a few miles south of Frankfort, is the residence of the grand-duke of Hesse-Darmstadt, and the seat of provincial government. Founded in the eleventh century, it did not rise above the rank

of a village until in 1479 it became one of the possessions of the house of Hesse. The new town owes its origin to the grand-duke Louis I whose columnar monument adorns one of its most spacious squares. There are two large ducal palaces, a library of more than 500,000 volumes, a theater, a picture gallery, and scientific, historical, and other associations.

A little further to the south and west is the town of Worms, one of the oldest and in the middle ages one of the most important of German cities, where in 1521 was held the famous diet at which Luther pleaded his cause in the presence of Charles V, the electors, and a brilliant assemblage of princes and nobles, concluding with the words: "Here I stand, I cannot act otherwise, God help me! Amen." In somewhat tardy recognition of the efforts of the great reformer is his statue in the Lutherplatz, in the midst of a monumental group erected in 1868. Of the original cathedral only portions of its round towers have been preserved, the present structure dating from the twelfth century, except a few later additions. Over the southern portal are sculptures representing scriptural and allegorical subjects, and in the baptistery within are finely executed reliefs presented by the ancient nobility of Worms.

Carlsruhe, or Karlsruhe, that is to say Charles' rest, was famous of old for the castle erected by the margrave Charles William in 1745, and around which the town was built. On its site now stands the ducal palace, for this is the capital of the grand-duchy of Baden. It is a large but unpretentious building in front, of which, in a square laid out with gardens and fountains is a bronze statue of the grand- duke Charles Frederick. Adjacent to the palace are the court theater and a hall of art with a few works of merit and many that cannot so be termed; a building in the Friedrichsplatz containing the grand-dukes' collections of Greek and Roman antiquities, vases, weapons, and other relics, with a library of 170,000 volumes.

In one of the valleys in the heart of the Black Forest is the favorite watering-place, and until recent years the favorite gambling-place of Baden-Baden, whose springs were known to the Romans, the remains of Roman vapor baths having been unearthed near what is known as the New castle, though a fifteenth century structure and with subterranean dungeons. Here lived the margraves of Baden after 1479, removing in that year from the old castle whose ruins still crown the rock whence issue the hot springs, 29 in number, and with a temperature of 115 degrees to 150 degrees. Of the several bath-houses the baths are most in fashion, a handsome edifice, but suggesting rather a museum building than the purpose which it serves. There is also an elegant Conversation hall, with a music stand nearby; and a picture-gallery, theater, and library afford additional pastimes for the 50,000 visitors who sojourn each year among the 15,000 residents. There are spacious pleasure-grounds, gardens, and promenades, carefully planned and preserved; for the place is under the care of the grand-dukes, who rule as hereditary monarchs.

At the base of the Black Forest range, and in the midst of the fertile plain bounded by the vine-clad Kaiserstuhl, is the city of Freiburg, founded by Duke Berthold II about the year 1090, and now forming a portion of the grand-duchy of Baden.

The cathedral or minster, erected mainly in the twelfth and thirteenth centuries, is not only one of the finest Gothic structures in Germany, but one of the most perfectly finished and handsomely decorated. Its tower, nearly 400 feet in height, is a marvel of architectural skill, the transition from its massive square base to an octagonal bell-tower surmounted by a graceful spire of perforated masonry showing the finished touch of a master's hand. Opposite is the Kaufhaus, or Merchants' hall, also an ancient building, with vaulted and columnar portico, above which is a balcony with projecting turrets

painted with coats-of-arms. On the Schlossberg stood two mediaeval castles, destroyed during the Bavarian war of succession, their ruins being now surround with pleasure- grounds.

In beauty of environment few German cities compare with Heidelberg, the remains of whose ancient chateau, the grandest in all the empire, still overlook the noble stream that skirts these wooded heights. It is of vast extent, and its ivy-clad ruins are linked with many historic associations, especially during the Thirty Year's war; thereafter it was dismantled by the French, and though presently restored, was finally destroyed by lightning. The modern castle is a composite structure in the form of a square, enclosing a court whose fountain is adorned with granite pillars from one of Charlemagne's palaces. The portion known as Otto Henry's building ranks among the finest renaissance structures in Germany; and little inferior to it is the Fredericks building, both being rich in sculptural and other decorations. Here also is an antiquarian museum, and the famous Heidelberg tun, with a capacity of 50,000 gallons. The university, where are some 1,200 students and a library of 450,000 volumes with many ancient manuscripts is one of the oldest in Europe, the cradle of German science, and, still a prominent seat of learning, although it may have lost some of the influence and prestige enjoyed in the past.

Strasburg is the capital of Alsace, as is Metz of German Lorraine; both of them cities of historic fame, and now ranking among the strongest of European fortresses. The former, originally a Celtic and then a German settlement, was occupied as a Roman camp in the year 9 AD, and during the middle ages became one of the wealthiest and most powerful of the free cities of the German empire. Though for nearly two centuries one of the provincial capitals of France it has maintained, its German aspect, language, and customs; and still in existence are many of the quaint old-fashioned buildings of feudal days, with their elaborate carvings and their Gothic gables and facades, among them the former home of Gutenberg, on the ground floor of which is now a boot and shoe store.

On the Kaiserplatz is the Imperial palace, a spacious modern structure rich in sculptural embellishments, and with a lofty dome above the audience chamber surmounted by colossal figures of heralds. The university, a noble edifice with handsomely decorated vestibules and aula, has an extensive library, a large number of Greek and Roman casts, and a few masterpieces by Quintin Matsys, Van Dyck, and others. There are several museums and academies; and in the old Episcopal palace is the town library, whose precious collection of manuscripts and incunabula was destroyed in the bombardment of 1870.

But the center of attraction is the cathedral, where are represented nearly three centuries of mediaeval architecture, from 1179, when the building was founded by Bishop Conrad, to 1439, when the open spire was reared at a dizzy height above the tall octagonal tower. Especially beautiful is the western facade, with its elaborate tracery and its rose window more than 40 feet in diameter. Sculptural decorations are plentiful, those above the portals representing scenes from the creation and redemption ranking among the finest specimens of Gothic art. The effect of the interior, its lofty pillars and spacious nave and aisles, is greatly increased by the subdued light of richly colored windows of fifteenth century execution. In the southern transept is the famous astronomical clock which regulates itself and adapts its motions to the changing seasons of the year. A skeleton strikes the hours and an angel the quarters, the latter represented by the figures of boyhood, youth, manhood, and old age.

On the northern arm of the Elbe, nearly 100 miles from its mouth, was erected by Charlemagne a frontier block-house, around which clustered for protection the wooden huts of perhaps a score of farmers. Such was the origin of Hamburg, now the greatest commercial city on the continent of Europe, and one of the foremost in population and wealth. While rich in historic records, there are few historic remains; for Hamburg is a thoroughly modern city, though not attaining to its present position without many serious reverses. Joining the Hanseatic League, of which it was one of the principal members, it continued in the main to prosper until the time of the Napoleonic wars, when its losses, especially during the occupation by Davoust, exceeded $50,000,000. In 1842 a conflagration swept away more than 4,000 buildings, the burned quarter being partially rebuilt through a loan of $12,000,000 obtained on the city's credit. Then came the financial panic of 1858, followed by other monetary crises, the effects of which quickly disappeared before the growth of commerce and manufactures.

As a banking center Hamburg has few superiors; it is also the great outlet for German emigration, more than 50,000 persons embarking yearly for foreign lands, mainly for the United States. The borse, with its daily gathering of several thousand merchants and brokers, is the focal point for wholesale transactions, as is the new market for retail purchases. Art has its home in the Kunsthalle, where are many of the works of ancient and modern masters. Among churches, that of St. Nicholas, built at a cost of $1,000,000 obtained chiefly by shilling subscriptions, is remarkable for its tower, 470 feet in height, and not far below it is that of St. Michael, its interior unsupported by pillars though with room for 6,000 worshippers. The Binnen-alster and its neighborhood, a sheet of water lined with tree-planted avenues and quays, with palatial hotels and handsome residences, is the most attractive quarter of a city well provided with pleasure-grounds and means for public recreation.

Lubeck is a town of historic interest, especially as the former head of the Hanseatic league, a great commercial and political association which in the thirteenth and fourteenth centuries included as many as seventy cities, subduing entire provinces and dictating terms to powerful monarchs, while its fleets held control of the northern sea and of the maritime traffic of northern Germany. At one time the trade of Europe and even of England was virtually in the hands of the league, the Guildhall in London being named after the hall of the merchants' guild in Cologne, where was the largest depot for Hansa goods. At Bruges, at Bergen, at Novgorod, and elsewhere were other depots through which were exchanged the products of every quarter of the world; but only on the terms prescribed by Hansa merchants, to whom princes, nobles, and lords, both temporal and spiritual, were compelled alike to submit.

In modern Lubeck, entered by the Holstenthor, a handsome mediaeval gateway, are still many of the buildings erected in the days of its former greatness, its gabled houses, its Gothic churches, and its venerable rathhaus where Hansa diets were held in the Hanseatic hall. The museum has a moderate collection of historic and artistic specimens, including some beautiful altar-screens and ivory tablets. The cathedral, founded by Henry the Lion and completed in 1173 has a tower nearly 400 feet in height, and its interior is rich in altar-pieces and other decorations. The church of St. Catherine is also an ancient structure, with lofty nave and elevated choir adorned with stained-glass windows.

Hanover, notwithstanding the narrow crooked streets and old-fashioned houses of its ancient quarter, was famous of old for its palaces; for the people of this great commercial and manufacturing city depended almost entirely on the monarchs and nobility of the former kingdom. The royal palace,

originally a seventeenth century structure, contains a picture gallery and a number of curiosities, while in the palace of Ernest Augustus is a valuable historic collection. In the schloss or chateau of Herren- hausen, with its open-air theater, its monuments, fountains, and hot-houses, and its garden of 120 acres profusely adorned with statuary, Georges I and II of England held their simple and inexpressibly stupid court. By Hermann Kestner was presented to the museum which bears his name cabinets of Egyptian, Greek, and Roman antiquities, together with a liberal sum for building purposes, its treasures being further increased by the purchase of rare books and medieval works of art. In the new quarter are many spacious squares flanked by modern residences, as the George square with its statue of Schiller and the Waterloo square with its tall column of Victory, on which inscribed names Hanoverians struggle with Napoleon.

A little to the southeast of Hanover is the quaint historic town of Hildesheim, probably of Roman origin, for near it was unearthed a complete service of plate belonging to the Augustan era. Created by Charlemagne the seat of a bishopric, in the tenth century Bishop Bernward taught these people the art of working in metals, for which the place was throughout the middle ages. The narrow, irregular streets, encircled with ramparts now converted into promenades, are lined with old Gothic buildings curiously carved and with projecting upper stories of which the Roland hospital may serve as a type. The cathedral is rich in antiquities, among which are the bronze doors executed by Bishop Bernward, and his column of Christ with reliefs while representing the history of its subject, in the treasury are antique silver crosses, croziers, statues altars, and reliquaries. The church of St. Godehard's, with its massive pyramidal towers, is one of the finest specimens of Romanesque architecture, and little inferior, to it is the church of St. Magdalene, where are the tomb and monument of the bishop, together with some of his art works. The rathhaus, which dates from 1443, contains the archives of the town.

Brunswick, founded in 851 by Duke Bruno of Saxony after whom it was named, is still almost contained within the line of fortifications erected by Henry the Lion, though now converted into gardens and promenades.

The ducal palace, occupied by Prince Albert of Prussia, is a handsome modern edifice, its portal crowned with a replica of Rietschel's famous quadriga, destroyed by f ire in 1865 as was the palace itself. The Ducal museum, whose collections date from the seventeenth century, is especially strong in the works of the Dutch and Flemish schools. There is also a fine display of enamels, old Italian majolicas, coins and medals, jewelry and gems, silver statuettes, ivory carvings, and articles in tortoise-shell and mother-of-pearl. Of church buildings the most imposing is the cathedral of St. Blaise, founded in 1173 by Henry the Lion; educational and charitable institutions are numerous, and among the most imposing monuments is that of Brunswick's fated chieftain, Duke Frederick William, who fell at Quatre Bras.

And here we will take our leave of the Fatherland, though much might be added to what has already been said; for of German cities and towns, palaces and cathedrals, princes and principalities, there is no end, albeit the estates of a score of nobles would not suffice for a good-sized farm in Australia. Within the last half century more has been done for the well-being of the people than was accomplished by all the great lords who dwelt in the schlosses of the castled Rhine, and in no country do existing conditions contrast more favorably with those which prevailed in the middle ages, when titled freebooters and margraves greedy of gain ground into the dust a starving and ignorant

peasantry. To the latter life was a burden and death the penalty of resistance to oppression too grievous to be borne, though even this was better than long years of hopeless toil and destitution. "Oh God!" exclaimed a youth led forth to execution, "must I die so young, and only twice in my life have I had my bellyful." Things have changed in Germany since the days of the margraves.

Miscellany

William II is one of the wealthiest of European sovereigns and spends money freely on his hobbies, among which are fast horses, carriages, and his magnificent steam-yacht, the Hohenzollern. In his stables opposite the royal castle in Berlin are about 350 horses and more than that number of carriages, some of the latter of historic interest, as the one which Frederick I used at his coronation and that which was made for Frederick the Great, heavily gilded and embellished with mythological scenes. The handsomest is the bridal coach, in blue and cream colors, made in 1863. In glass cases are trappings, bridles, and bits of gold and silver, with the ostrich plumes used on state occasions. Many of the minor potentates are also very wealthy, especially Frederick William I, grand-duke of Mecklenburg-Strelitz, and Prince Heinrich of the principality of Reuss-Greitz.

Queen Frederick of Prussia is the owner of a necklace valued at $175,000, her mother, Queen Victoria, being content with one of inferior quality, worth less than half that amount. The empress of Russia has one of the most beautiful necklaces in the world, made of several rows of pure white pearls whose price was probably not less than $120,000. More precious, but not more beautiful ornaments are those of the baronesses, Adolphe and Gustave de Rothschild, costing together some $400,000, though their exact value cannot be estimated, for the jewelers of these wealthy and titled dames have orders to bring to them the finest stones that come into their hands, to form new rows for their necklaces. To a sister of M. Thiers belongs a necklace which required 30 years and $75,000 to collect. The most valuable necklace in existence is that of Madame Leblanc, with stones of brilliant luster and beautiful shape, carefully graduated in size. It was sold for $400,000, but repurchased for reasons that need not here be mentioned. On the throne of the Vatican is a single pearl worth $100,000. Of black pearls the empress of Austria has the finest collection, and next to it is the one contained in the casket of the tzarina of Russia.

In the Frankfort Judengasse lived Meyer Anselm, whose surname was Rothschild, who had won for himself the reputation of an honest man as well as that of a money-changer of unusual dexterity, being able by the touch of his fingers alone to tell the value of any foreign coin. To him one day in 1793 came the landgrave of Hesse Cassel, in terror of the red republicans of France, begging him to take and keep safe his money and jewels. There was a million pounds sterling in silver, which the Jew might use without interest if he would only keep it safely. In such a manner was this done by the faithful Meyer Anselm, that when the prince returned he was overjoyed to find his treasures safe, so that he heralded far and near the honesty of the Jew, whose fortune was thereby made. By constant stirring Meyer Anselm's small pile grew great, and on his death bed he made his five sons swear that they would remain faithful Jews, that they would do business in company, and increase money but never divide it. Then Anselm, Solomon, Nathan, Charles, and James divided the world among them and went forth to conquer. Nathan to England, James to Paris, Solomon to Vienna, Charles to Naples, while Anselm remained at Frankfort. Arriving at Manchester with $100,000, in six years Nathan made it a million and moved to London. As adroit as he was audacious, he began his career with the government. He used every means to obtain the first news, bred and trained carrier pigeons, and secured the swiftest vessels. When the battle of Waterloo was fought he was on the ground and reached London a day or two before the government got the news, greatly to his profit. James did well in Paris, as indeed did all the brothers.

One of the richest men in Germany is Gerson Von Bleichroeder, whose father, the president of a small banking establishment, was selected by one of the Rothschilds as his Berlin agent in 1829. Bleichroeder was honored with the friendship of Bismarck who was not slow to recognize the importance of his firm and in return was idolized by the great financier, whose reputation became world-famous. Bismarck, while a wealthy man, was by no means a millionaire according to our modern notions, his entire income after he became possessed of Friedrichsruhe being less than $10,000 a year, of which at least one-third was consumed by mortgages on his estates.

Speaking of wealthy families, what shall he said of the Fuggers? Alas! for the mutability of earthly affairs, whether of nations or families, whether of monarchs or plain men. A Swabian family, whose founder was John Fugger, a master-weaver of Graben, near Augsbui, they were at the time of the grand monarchs Maximilian and Charles V what the Rothschilds, and Barings, and Couts, and Astors Vanderbilts and Rockefellers are at a later day. As the Fuggers became princes the lucre which made them so became filthy—that is theoretically and conventionally but not really. John, the son of John, was also a weaver, whose fortune when he died in 1409 was only 3,000 florins. The second John had two sons, Andrew and Jacob; the former married well, was called the rich Fugger, and founded a line of nobility, which became extinct in 1583. After the death of the latter, his sons, Ulrich, George and Jacob, became very wealthy, weaving and working mines and marrying and lending money to monarchs. Maximilian was glad to give them tin empty titles which they coveted in return for their hard ducats. Charles V did not disdain their hospitality during the diet of Augsburg in 1530. But in buying nobility the honest Fuggers did perhaps as well, and were as worthy of the so-called honor, as were those who obtained it through piracy or other robbery and murder; for though of the wealth of the Fuggers we now hear little, there still remain the highly respectable houses of Fugger-Kirchberg and Fugger-Babenhausen.

Watches were, as I have said, among the many inventions of the people of Nuremberg during their prosperous days of the fifteenth century. The first one was made in 1477 and was accounted as among the wonders of the world, though always out of time. It sold for $1,500 as money is now valued, and the same price was demanded for others, since each one was an entire year in the making. Nuremberg eggs they were called, being oval in shape, for it was not until two or three centuries later that horizontal watches came into use.

In the cellar of the Hotel de ville, in Bremen, were deposited in 1624 a dozen large cases of rosenwein, each named after one of the apostles, the wine of Judas being most in repute. It is kept chiefly for the use of the burgomasters of the city, who when entertaining distinguished guests may send for a bottle of it, but for a single bottle only; for it is an expensive drink. Costing originally 500 rix-dollars a case, it is estimated that it the interest on this sum, together with that of the cost of storage and other charges, were compounded for the intervening period of more than 270 years, it would be worth about 2,700,000 rix-dollars a bottle, or 270,000 rix-dollars a glass. Luxuries are costly even among the thrifty sons of the Fatherland.

In the neighborhood of Solnhofen are some of the largest slate quarries in the world, worked at intervals since the days of the Roman occupation, and in 1895 with 3,000 workmen still extracting slate of the quality used for table slabs, lithographing, and other purposes. Here was unearthed a fossil bird known as the archaeopteryx, and sold, as is said, to the museum of the Freie Deutsche

Hochstift for $9,000. This is probably the largest sum ever paid for a bird; but it was worth the price, for the specimen is supposed to be some 50,000,000 years old.

At the town of Aix there was invented in 1346 what was termed "an iron barrel to shoot thunder," and a few years later there were in the armory at Nuremberg guns which threw missiles of metal or stone. While by some the invention of gunpowder is attributed to the Chinese and by others to the Arabs, it was only fine powder that they made, the manufacture in grains suitable for warfare being probably discovered by Berthold Schwarz, a Franciscan monk of Mayence. Its use was long regarded with abhorrence; but with improvements in f ire-arms its value was gradually established, and certain it is that gunpowder rendered a great service to mankind during the middle ages, if only by sweeping away the robber knights with their dens of plunder.

The Bavarian civil list amounts to nearly $1,500,000 a year; that of Saxony to $600,000; Baden $250,000; Hesse the same; Saxe Coburg Gotha $185,000; Prussia nearly $4,000,000, and that of Wurttemberg comes to $450,000. When Duke Albert of Wurttemberg comes to the throne with the great estates of his grandfather, Archduke Albrecht of Austria which he is to inherit, he will be one of the richest kings in Christendom.

Toward the end of the fifteenth century most of the German courts had their alchemists, and especially that of Rudolph II, where princes engaged in the search, the elector of Saxony devoting his entire life to this futile art. If all matter was derived from the philosopher's stone then why not gold, which could certainly be made to order, if only the secret were known. It was even asserted that gold could be extracted from the bodies of the Jews, two dozen of which would be required to produce an ounce of the metal. In the middle of the eighteenth century Francis I had alchemists in his service, and by the use of burning glasses attempted to convert small diamonds into one large brilliant.

Germany makes 600,000 tons of beet sugar every year.

The Berlin sapphire weighs six ounces and is valued at $16,000,000.

Germany's crop of potatoes is 21,000,000 tons a year.

The Krupp estate at one time employed 19,600 laborers.

One of the principal events of 1895 was the opening of the Kiel Canal connecting the Baltic with the North Sea, beginning at Holtenau on the bay of Kiel, passing through the province of Schleswig-Holstein, and with its terminus at the mouth of the Elbe. It is 61 miles in length and at the surface nearly 200 feet in width, allowing vessels to pass at any point by day or night as it is lighted by electricity. It was eight years under construction and cost about $40,000,000 on which, as was estimated, the tolls would pay at least a moderate interest; for the traffic between Baltic and North Sea ports is 18,000,000 tons a year, the distance from Hamburg to the Baltic being shortened by 400 miles, and from Antwerp and Amsterdam 240 miles. On the 20th of June it was opened amid imposing ceremonies, a procession of steamers, royal yachts, war vessels, and other craft representing many nations passing through the canal. At its head was the Hohenzollern with Emperor William on board.

Hamburg is at the head of the German shipping trade, with a tonnage of about 12,000,000, or almost as much as that of all other ports combined. Most of the maritime commerce is conducted by foreign

and especially British vessels; for the mercantile marine is small, but of excellent quality. As to figures, the commerce of Germany cannot readily be estimated, since the free-port territories are excluded from the customs frontier, which is thus considerably smaller than the political frontier, while through the league known as the Zollverein, commerce is subject to special regulations practically applying to the entire country. Imports may be stated at somewhat over $1,000,000,000 a year and exports at $800,000,000, the former consisting largely of food products and the latter of manufactured goods. In this is not included the transit trade, amounting to about $300,000,000. An attempt was recently made to raise the price of grain for the benefit of the agricultural classes, but without success. The only way to relieve the farmer would be to lighten his load of taxation, rendered the more grievous by the building of $40,000,000 canals, the hoarding of gold against the contingency of war, and the maintenance of an enormous army in which the sons of the farmer must serve while their father is taxed for their support, and loses besides the benefit of their assistance.

Of nearly 30,000 miles of railroad, all but 3,000 belong to the government, paying four and a half percent on an invested capital of $3,000,000,000. The emperor has his private train costing $750,000, one of the cars containing a reception saloon richly adorned with works of art. Street car companies must pay handsomely for their privileges, a Berlin company recently giving its check for $250,000 for the right to cross the Linden at a single point. There are 80,000 miles of telegraph lines, and probably 65,000 telephone stations, of which latter there were but 1,500 in 1881.

Only six percent of the area of Germany is classed as unproductive, agricultural lands amounting to 90,000,000 acres, while 34,000,000 acres of forest under care of the state are a source of considerable revenue. Except in very favorable years, the 5,300,000 farms, orchards, and vineyards do not yield enough food and wine for home consumption, though of cereals the crop averages 15,000,000 tons, of potatoes 25,000,000, and of sugar beets 10,000,000 tons. Tobacco is largely cultivated in the southern provinces, and of hops there are raised sufficient for a moderate export, besides keeping busy many thousands of breweries whose output exceeds 1,000,000,000 gallons a year. Farm animals are in plentiful supply, some provinces having 1,500 head of the larger kinds to every 1,000 inhabitants.

Chiefly in Saxony and the Hartz mountains is produced silver to the value of $15,000,000 a year, and of gold $2,750,000. Lead is found in greatest abundance near Aix-la-Chapelle, and more than half the European supply of zinc is furnished by Germany, while of copper the production is large, though insufficient for home requirements. In Saxony, Hanover, and Thuringia are some of the largest salt works in the world, the total annual yield of potassic and rock salt exceeding 2,000,000 tons. Of coal the output is 70,000,000 to 75,000,000 tons from fields that are practically inexhaustible, the six largest districts now in operation containing deposits estimated at 45,000,000,000 tons, while in Upper Silesia is a still larger supply. Thus while American coal may possibly be exported to England during the coming century, we cannot look upon Germany as one of our prospective customers, at least for some 2,000 years to come. Iron ores are equally abundant, though few of the mines are in the neighborhood of collieries and thus their working is restricted. Yet German foundries and ironworks produce at the rate of 6,000,000 tons a year and to the value of $180,000,000. Of steel the production has increased enormously with exports of at least 150,000 tons, while more than that quantity goes into home consumption. Most of it is made at the famous Krupp works in Essen, where at one time were 20,000 workmen.

Of German art industries I have already spoken, Berlin and Munich being the principal centers of art manufacture, though in many other cities special branches are conducted. For the making of textile fabrics there are about 500,000 establishments, large and small, most of them producing cottons and woolens, not of the finer grades but cheap and durable. Silk weaving is on a considerable scale, though the materials are almost entirely imported. Of refined sugar the production is 800,000 tons a year, and in other departments the output is very large, for, as I have said, Germany ranks next to England as a manufacturing country.

Chapter the Fourteenth: Denmark, Norway, and Sweden

Get leave to work
In this world, 'tis the best you get at all;
For God, in cursing, gives us better gifts
Than men in benediction. God says "sweet
For foreheads;" men say "crowns;" and so we are crowned.
Ay, gashed by some tormenting circle of steel
Which snaps with a secret spring. Get work; get work;
Be sure 'tis better than what you work to get.

C'est un ordre des dieux qui jamals ne se rompt
De nous vendre un peu cher les grands biens qu'lls nous font.
—Corneille

Wie sich Verdienst und Gluck verketten
Das fallt den Thoren niemals ein.
—Geothe

He that holds fast the golden mean,
And lives contentedly between
The little and the great,
Feels not the wants that pinch the poor,
Nor plagues that haunt the rich man's door,
Embittering all his state.

Nil sine mango
Vita labore debit mortalibus.
—Horace

Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay.
—Deserted Billage

Aucun chemin de fleurs ne conduit a la gloire.
—La Fontaine

In the north beyond the Elbe all is ice and darkness; the air is misty vapor and the soil is snow; the North Wind holds rule, and no man can live therein. But far beyond the North Wind dwell the Hyperboreans, in a warm, fertile land, fruitful under sunny skies; in plenty, and in peace with gods and men they live, without pain or sickness, without care of husbandry; and should any wish to die they have but to drop themselves from a cliff into the sea. So would a Greek have written on the history of Scandinavia three thousand years ago.

Some 350 years before Christ there lived at Massilia, which we now call Marseilles, a Greek navigator and geographer named Pytheas, who after voyaging to Britain, whither he went to ascertain whence Phoenicians obtained the tin and amber which they could not find at home, sailed away northward until he came to the island of Thule, where amber was thrown up by the sea so plentifully that the natives used it for fuel. And a little further on he found a land where grain was raised for bread, and was threshed in a covered building because of the snow, and because moreover the sun did not always shine. Berries grew there, which they used for food, and of the honey of the bees they made a pleasant drink. These and other like things related Pytheas on his return, if Strabo may be believed.

In the time of Alfred the Great came to England two men of Scandinavia, Wulfstan and Ohthere, and so greatly was the king interested in what they said that he wrote it down, and prefixed it to his Latin history of Orosius. Even in Italy were sometimes tall, powerful, blue-eyed, and yellow-haired strangers, whom the Romans called Cimbri, and who entered battle on horseback, fighting with unflinching bravery amid loud guttural shouts the Roman soldiers who were seldom able to break through the chain of shields.

Then strings of amber beads by some means found their way to Rome and became the fashion; and when men set forth northward to find out whence these baubles came, the Romans began to learn something of the Scandinavians and of their country.

For themselves the North- men claim to be of German origin, that is to say Goths; but the Goths were not first upon the Baltic; they found there, when they came, the Cimbri and others, who were driven into the yet colder and more barren regions now known as Lapland and Finland. However this may have been, it is well known that these Northmen early became restless wanderers, swarming southward like locusts to settle on some pleasant food producing spot, plundering without scruple whomsoever they met, hiding in vik, or bay, whence they darted out upon the unwary passerby; and so they came to be called vikingar, or Vikings.

From the name, Denmark, signifying a darkly-wooded land, it is safe to conclude that this part of the country was once covered with somber forests. We learn of Denmark's early history from the tales, hor sagas handed down from generation to generation by Danish skalds, more reliable perhaps than those of the Swedes and Norwegians, because the former were collected and recorded in Latin, by one Saxo, in the twelfth century, afterward being put into modern Danish.

Saxo says that after many petty sovereigns came one called Frode the Peaceful, peaceful, perhaps, but not until he had conquered 220 foreign kings and taken possession of the country between Russia and the Rhine. It was a golden age in Denmark, owing it was said to the birth of Christ at that time; neither want nor wickedness were known, and the golden chains and armlets which were used as money, links or pieces being broken off as required, could be left upon the wayside in safety. Another famous king was Stoerkodder, son of a giant, and so large and strong that no one could contend with

him. He held his court at Leire, and his fame attracted thither all the great skalds and Vikings of the day. In the eighth century was fought within sight of East Gotland the great naval battle of Bravalla, in which Odin appeared for the last time to man. The battle was fought by the Danish king. Harald Hildetand, and the Swedish king, Sigurd Ring, the fleet of the former stretching entirely across the sound, and that of the latter numbering 2,500 ships. In the north nobles only were counted among the slain in battle, and of these the Swedes lost 12,000 and the Danes 30,000, Harald being of the number.

Not long after this came Scandinavian feudalism, when the whole country was broken into small independencies under the rulership of the Vikings, who carried more and more into distant parts piracies on the high sea and robberies, butcheries, and burnings on land.

Christianity was offered them; but they declined it, preferring to bring of their spoils every yuletide, or every spring, costly gifts to Odin; silver, gold, and precious stones, and the rich stuffs of southern and eastern countries, the king of Leire being always chief of the twelve high priests officiating. In due time came the internal broils which thinned the Viking aristocracy, and centralized governments, the first king of all Denmark being Gorm the Old, who with Siegfried and other of his associates and followers made inroads into France and even besieged Paris, Gorm's queen, Thyra, ruling in his absence. Later England was invaded by Cnut the Great, known abroad as Canute, who conquered Norway in 1030 and died in 1035 at the age of 36, sovereign of six countries,—Eng land, Scotland and Cumberland, Denmark, Sweden and Norway. During all these centuries kingdoms were created and crowns bartered, the Scandinavian country forming sometimes one and sometimes several monarchies. Magnus the Good of Norway gave to his people their first written laws, and ruled Denmark as well as Norway for a period of five years. Father of the Swedish kings, as well as of those of the Danes, was Odin, to whom a temple was built on the site of ancient Sigtuna. Norway likewise claimed Odin as the founder of their nation, all the royal houses of Scandinavia being thus united in ties of holiest kinship.

It is not easy to trace the several histories of the various Scandinavian powers, with their pontiff-kings and other mythological personages; the heroes of Denmark and Sweden are so intermingled in their exploits, that it is sometimes difficult to say even to which nation they belong. It was while the Swedes were looking toward Russia and fighting Slavs and Finns, and the Danes were prowling about the coasts of England and penetrating France, that the Norwegians, with that absorbing love of adventure which makes a play of danger, struck out boldly into the ocean and found Iceland, Greenland, and America. What a prize was here for some Scandinavian Ferdinand Charles or Philip!

Cursed of the gods, the discoverers said, was Iceland, a place inhabited by horrible giants, living in caves and forever fighting each other with stones burning in liquid fire,—a report not likely to attract settlers. But hotter still became the bleak land of Norway to certain outlawed sea-rovers who could find rest neither at home nor abroad; so with a carved image of Thor the Viking Thorolf builds a temple in Iceland, and divides the island into districts, and a republic is formed, a republic of robbers, before ever the Dutch or American republics were thought of; and now the story told is that the climate is delightful, the soil fertile, with milk from every plant and butter from every twig.

Then Erik the Red discovers Greenland, and his son Leif takes thither monks and builds churches. Wherever men go the powers above must be propitiated. Erik knows better than to baptize his country with a bad name; so because it sounds better than ice and snow he calls it Greenland, though

it may be a region more dreary even than Iceland. America is found by Biarne, an Icelander cruising about in search of a lost father; informed thereof, Leif visits Vinland den Gode, or the present Rhode Island. Besides these modest but daring adventures, the voyage of Columbus amid the trumpet blasts of Europe was but a bit of southern pageantry!

Meanwhile the Jarls and Hacos and Haralds and Magnuses and Cnuts and Olafs and Valdemars of Norway, Sweden, and Denmark continue to kill each other and make history. In the tenth century Harold Harfager, the Fairhaired, subdues and unites the petty potentates of Norway into one kingdom. And so it continues, dropping its nationality now and then, now a province of Sweden, or again of Denmark; then uniting with one or the other or both, until under Margaret of Denmark, the Semiramis of the north, was formed the union of Calmar; which was broken by Gustavus Vasa of Sweden in 1523. The Shetland and Orkney islands were given to Scotland upon the marriage of the daughter of Christian I with James III. Of all the Danish kings the one held in highest esteem in Norway was Christian IV, who spent much of his time there, and founded Christiania in 1624, and Christiansand in 1643. From this period Norway was treated less as a joint government than as a subjected province, until the reign of Frederick VI, who founded the University of Christiania in 1811, and manifested further interest in the welfare of the Norwegians. Then came Napoleon and played Norway against Sweden, and Denmark and the rest against Russia and England; and so the people and patches of God's earth were gambled away among men killers and masters.

To the indignation of the Norwegians, their country was declared the property of Charles XIII of Sweden, which brought forward Christian, crown prince of Denmark, and hostilities and further negotiations followed, until Norway and Sweden became united under King Oscar, whose son was crowned king as Charles XV in the cathedral of Drontheim in 1860.

Yet more confused by Norse legends and Odin dynasties is the early history of Sweden than that of Norway or Denmark. After centuries of wars with the Goths we find Swerker I succeeding Inge II as king of Svealand, or Swedeland, opposing which succession was Eric, whose claims were supported by the Goths. It was finally arranged that Eric should succeed Swerker, which made it tolerably certain that Swerker would die first; and after that the representatives of the two families were to reign alternately under the title of king of the Swedes and Goths all of which, was well arranged to bring about the troubles which followed. Stockholm was founded by Waldemar, son of Earl Birger, or Birger Jarl, who was chosen king in 1250. Then until came Magnus Ladulas, and civil broils and foreign crusades by his successors, Haco of Norway marries Margaret, daughter of Waldemar, king of Denmark and the three Scandinavian powers become for a time united.

After the long war which followed the revolt of Denmark and Norway, anarchy prevailed until 1520, when a leader was found in Gustavus Erikson, or Gustavus Vasa, whose father had been one of eighty prominent nobles hanged as traitors by Christian II of Denmark. Gustavus was successful in his opposition to Denmark, and at his death in 1560 he was succeeded by his sons Eric and John. Meanwhile Sigismund, son of John, had been chosen king of Poland, and upon the death of his father attempted, without success, to introduce the religion of Rome into Sweden. He was deposed in 1604, and his uncle Charles IX ruled wisely, until at his death in 1611 his son Gustavus Adolphus ascended the throne, and spent the twenty-one years of his reign in war with Russia, Poland, and Germany. Oxenstiern managing affairs during his absence, and also after his death in 1632 during the minority of his daughter Christina, who abdicated in 1654 in favor of Charles X.

War with the elector of Brandenburg and the peace of Fontainebleau gave advantage to the Swedes, so that when the bellicose Charles XII came into power, he was enabled to undertake the campaigns whose cost nearly ruined the country. On the death of Charles XIII in 1818, Bernadotte, prince of Ponte Corvo, ascended the throne of Sweden as Charles XIV, and thereafter rapid progress was made in commerce arts and manufactures, as well as in the moral and social condition of the people. He was succeeded by Oscar I, called the most accomplished prince in Europe. Upon the death of Oscar in 1859, the monarchy fell to his son Charles XV.

The wife of the first King Oscar was Josephine of Leuchtenburg, granddaughter of Josephine, empress of the French, bearing to the king four sons and a daughter. Scandinavian unity had been the desire of King Oscar's heart, and to that end he had endeavored to draw together from all parts statesmen, scientists, and literary men who were interested in the subject. Charles XV continued his father s policy in this respect, approving of more liberal institutions and encouraging industry and enterprise. A new form of government for Sweden and Norway was agreed upon in 1866, the Swedish diet to consist of two chambers, with annual sessions. At his death in 1872 Charles XV left one child, the princess Louisa, wife of the crown prince of Denmark; he was succeeded by his eldest brother who assumed rulership under the title of Oscar II of Sweden and Norway.

Little more need be given here of the history of Denmark. From the ill-reputed Christian II, grandson of the count of Oldenburg, the crown passed in 1523 to Frederic I, duke of Schleswig and Holstein, whose son, Christian III, by uniting these duchies to the crown and dividing the government among his brothers, brought subsequent trouble on the country. A great religious war befell the land in the seventeenth century, in which Christian IV took sides with the Protestants, but was defeated by Wallenstein. Then followed wars with Sweden, and other powers, all in the name of dull-witted monarchs, deluging the land with the best blood of its people for empty words regarding religion and rulership, with alternate battles and alliances, offensive and defensive, with Russia, Prussia, England, and the rest, until we run against the invincible Napoleon who has no intention of leaving out Scandinavia in his seizure of the rest of Europe. In the troubles which followed, Denmark lost such of the West India islands as belonged to her, but regained them in 1814. Then came further trading of sovereignties, the cession of Norway to Sweden in return for the cession of Pomerania to Denmark, to be finally given to Prussia in exchange for the duchy of Lauenburg and a certain amount of money. Further complications followed about matters of such stupendous importance to mankind as the succession of the several individuals claiming proprietorship over their fellows, until by a convention of the plenipotentiaries of northern European powers. Prince Christian, of the Sonderburg-Glucksburg line, was given the preference, greatly to the dissatisfaction of Schleswig and Holstein as well as of Denmark.

One condition after another was pressed on Denmark by Austria, Prussia, and the lesser German powers, until the alarums of war were once more sounded. Before their powerful foes the tide of battle was against the Danes. In order to save his government from utter destruction, Christian IX was forced to accept the terms offered by the peace of Vienna in 1864, which were made none the easier to bear by reason of the arbitrary assumptions of Prussia after the war with Austria in 1866. Nevertheless Denmark, rapidly recovered from her long periods of misfortune, and under the popular and constitutional rule of King Christian IX enjoys greater political freedom and intellectual and industrial progress than ever before.

Thus we see that although outside of the great pathways of the world's traffic, Scandinavia has exercised no small influence over the world's events, and would have exercised much more had her Markland and Vinland settlements been continued. Following the records, we find the Northmen prowling about the English coast as early as 787; they were defeated in 835 in a battle fought with Anglo-Saxon Egbert; Ethelred was defeated in 875 by the Danes, who thus became masters of Northumberland; four Danish kings ruled in England prior to the twelfth century; the Northmen had a king in Dublin in the ninth, and there were Scandinavian princes of Waterford and of Limerick. The Shetland isles and the Hebrides once belonged to the Northmen and Scotland was subject to their many visitations in and subsequent to the eighth century, the invaders being finally defeated by the army of the Scotch king, Duncan, under the leadership of Macbeth and Banquo. Then came their discoveries in America, second to none of the world's great achievements. The Russian coasts were colonized by Scandinavians, Russia appearing frequently in the sagas under the names Ostrogardia and Gardarike, and in return the newcomers were honored by the natives with the title of Varangians, or sea-rovers, the word in the ancient Swedish signifying wolves. Ruric took Novgorod about 865, dividing the surrounding lands among his people, and founding a dynasty which gave Russia her rulers down to the seventeenth century. From the Novgorod colony two men made their way to the Black sea and the Bosphorus, and before the twelfth century the Byzantine emperor had among his bodyguard 700 sea-rovers from Kiev, Byzantine coins of 842-867 now in the Christiania museum being found by ploughmen in Norway. Indeed, there are few spots of earth which will not raise fighting men. We find the Vikings at various epochs disputing with people their possessions,—in the Meuse, in France, in Spain, even within the pillars of Hercules in the Mediterranean pirates' nest. They sacked Utrecht and Antwerp, and devasted Friesland.

Gottfried was at the Scheldt and Rollo on the Seine. Bonn, Cologne, Metz, and other towns were sacked and burned, and after Charlemagne had gone they stabled their horses in his cathedral at Aix-la-Chapelle. In fact, it would be easier to tell where the Northmen had not been than to continue this catalogue further.

For cities and towns in Norway there are among others Christiania, the capital, Christiansand, Bergen, Stavanger, Drontheim, Frederikshald, and Drammen; in Sweden, Stockholm, Malmo, Christianstad, Carlscrona, Wexio, Jorkoping, Calmar, Linkoping, Holmstad, Mariestad, Wernersborg, Gothenburg, Upsal, Nykoping, Westeras, Orebro, Carlstad, Falun, Gefle, and Hernosand; in Denmark, Copenhagen is the only city containing more than 20,000 inhabitants.

The climate of the northern peninsula is less severe than from the latitude one might suppose, being tempered by the gulf stream bringing warm wind and water currents from the southwest. The east side is about two degrees colder than the west; the southern end differs little in climate from northern Germany. There are fiords on the western coast which are seldom frozen. In Denmark, owing to its low and almost insular position the air is humid, the cold being greatest in Jutland. The shores are rugged, with many islands broken off arms of the sea flanked by precipitous cliffs running far inward, and alternating with low sandy stretches. Here and in the interior mountains rise to a great height, and the swift-running streams are many. Sweden abounds in beautiful lakes, and has some elevated valleys and high plateaus. On the coast of Denmark there are also many fiords; parts of the west coast are dyked; the interior is a low almost unbroken plain, of alluvial soil, the eastern part of Jutland being covered with rich vegetable mould, while the north and western portions are sandy wastes. In the northwest the country is somewhat desolate, and tree-culture is encouraged by government.

A large part of northern Sweden is covered with pine and fir forests, furnishing large supplies of timber; the soil generally is not fertile, being largely of disintegrated rocks and containing too much silex. There are some arable and some pasture lands, but not of proportionately great extent. The interior has here and there a fine woodland growth of ash, willow, maple, and linden trees; in the southern part are oaks, beech, and elm. Fruit trees, unless it be the cherry, do not grow well; barley is generally cultivated, but wheat, oats, rye, beans, and peas are restricted mostly to the southern districts. Root crops are general, and tobacco is grown near Stockholm. Norway has good pasture lands, but the soil is light and sandy; the products are much the same as in Sweden, fruits being more abundant and barley chief among cereals. Denmark produces largely of wheat, barley, rye, oats, buckwheat, peas, beans, and potatoes, with other vegetables and some fruit. Tobacco is grown; likewise hops, rapeseed, hemp, and flax. There are broad pasture lands devoted to cattle and horses. As a rule the rivers and lakes, not to mention the sea, are well stocked with fish, and the forests with game.

Minerals are not plentiful in Denmark; the island of Bornholm has some abandoned coal mines, and salt is made in Holstein; fuller's earth potters and porcelain clays, and freestone are put to some use. The, metamorphic mountains of Sweden abound in metallic veins holding the, silver, lead, chief wealth of the country, copper, cobalt, zinc, and iron being common. The silver mines at Sala, in Westmanland have produced over 800,000 ounces a year. An inferior quality of coal is found near Helsingborg. The mountains of Norway also contain silver, nickel, cobalt, copper, and iron.

In manner the Norwegians are cold and reserved, but at heart kind and hospitable. They are frugal and honest, excellent sailors, and surpass both Swedes and Danes in industry and enterprise.

In the north are chiefly Laplanders, who, amid their herds of reindeer, live aloof from the southern folk, the latter engaging in stock-raising rather than in tillage. The large landholders are called proprietors; the smaller ones, who own their farms, are bonders. Agriculture is so ill understood and practiced that there is not raised enough grain for home consumption. The forests and mines remunerate labor, and the fisheries yield $5,000,000 annually. Two lines of packets are employed during the season carrying lobsters to London. There are a few cotton and paper factories but manufactures amount to little. Timber is largely exported, and some building stone; of which there is much yet remaining.

In Sweden, besides the old Scandinavian or Norse stock, which comprises the larger part of the population, there are the districts of Westerbotten and Norrbotten which are peopled chiefly by Finns and Lapps. The Swedes are of large, strong frame and florid complexion; the nobility, the clergy, burghers, and peasants are the classes into which they divide themselves. Of the first there are some 10,000, once wealthy, holding large landed estates, and though now poor, still holding useful labor—for themselves—in contempt. There are yet more of the clergy, whom with the others the laborers have to support. The burgher class, manufacturers and members of guilds, may be magistrates; the peasants are really the best to do of all, being industrious, prudent, and holding among them much property. Barley being plentiful and labor cheap, distilleries arose, some 86,000 of them it is said by 1835, but now only a few thousand, implying that of late years more water than whiskey is drunk. Yet, some other manufactures are increasing—iron steamer and engine works, lumber cloth and paper mills, cutlery glass and earthenware shops, besides the making silk stuffs, clocks, and watches. Education is in the hands of the clergy, who in their way dominate all classes.

Humanity in Denmark is in a mixed condition, five distinct races side by side inhabiting the land; in Jutland and Zealand the Danes; in Holstein, Lauenbnrg, and Schleswig, Germans; on the west coast and islands, Frieslanders; between Flensburg fiord and Sley, Angles; in Iceland and the Faroe islands, Norwegians. Somewhat more than half of the inhabitants speak Danish, and the remainder German. Their features are regular, eyes blue, hair light; they are good seamen, but more than half of them engage in agriculture. Manufactures are not of large amount, woolen, cotton, silk, and linen goods being chief, with some work in almost every other direction. The Danes make everything, but in limited quantities.

For so vast a sea-coast and so many fine harbors, there are few wharves or docks on the shores of Norway. The sea-kings were accustomed to land from small boats, or to wade ashore, and their descendants in this as in other things have through habit or indifference adhered to the old custom. Besides, wharves injure the boatman's business, and boatmen must live. So I might continue, and easier tell what is not in Scandinavia than what is there. In the north of the peninsula summer nights are unknown, which is uncanny and inconvenient tor those unaccustomed to sleep in the daylight.

Tdrondhjem, where the Vikings used to land their spoils and enjoy their revels, was the ancient capital of Norway. There was a small town here, called Nidaros, old even in the tenth century, and on its site the present Tdrondhjem was built by Olaf Tryggveson, whose ancestor was Harald Haarfager.

After committing innumerable depredations all the way from Trondhjem to Constantinople, Olaf turned Christian, and casting out of the temple at Nidaros his old-time gods, Thor and Odin, he broke them in pieces, which seemed unkind treatment of the deities that had helped him out of so many perilous situations. Later, in place of the temple of Thor and Odin, Trondhjem had reared for him a great cathedral, and Olif the Heathen became Olaf the Holy, yet stealing and killing all the same; notwithstanding which he was sainted; over his grave a chapel was erected, and to his shrine pilgrims came and worshipped, for of such stuff are we mortals made. You may see today in one corner of the cathedral the very spot where St. Olaf was buried; it is now a well of healing waters, of which he who will may drink and live. Here in this great church the Carls and Christians and Oscars are crowned, and so become by almighty sanction masters of men. In the bay, not far from Trondhjem, is the fortified island of Munkholm, where Canute established a Benedictine monastery nearly 900 years ago, and where Christian V of Denmark once confined in one of the towers Count Griffenfeld, his minister of state, keeping him there a prisoner for eighteen years. Although there is more scenery than money in Norway, yet the burghers of Trondhjem are by no means poor; many of them indeed are wealthy, measuring wealth by contentment and the absence of wants.

Tromso, the metropolis of Finmark, or Norwegian Lapland, is said to be the largest town within the Arctic Circle, though its population is less than 10,000. It has a considerable shipping trade, exporting furs, fish oil, deerskins, and eider down. At the whaling station of Vadso, a company well furnished with capital conducts business on a large scale, having in its service several steamers carrying portable harpoon guns which may be fired from a whaleboat; and should a shot from one of these weapons prove ineffective, an explosive torpedo may be sent into the body of the whale when it rises to blow.

The northernmost town of the earth is Hammerfest, situated on a warm and well-protected bay, where live two or three thousand human beings as happy as those to be seen on London streets or Paris boulevards. I said warm, because except at the head of the fiords ice seldom forms on tide water, even during the eleven weeks of winter night; and this notwithstanding the fact that on a line of

latitude thirty degrees south one may, not infrequently cross East river from New York to Brooklyn on the ice. There are at this hyperborean settlement several cod-liver oil factories which control a considerable business. There is also a large number of independent fishermen; but the wealth of the Lapp is chiefly in reindeer, some having in charge of hired men bands of several thousand, which are used not only as property but almost as money, being inherited, and passed on as marriage portions. It is a good thing to be rich, even a rich Laplander; for his smoky, filthy hut may be larger than his neighbor's, and hold his larger family his herders and servants, who are always members of the family, helping themselves in common with the master's children, with fingers, sticks, bone spoons, or sheath knives from the great kettle filled with reindeer meat which hangs over the fire in the middle of the room, all dressing in deerskin coats and trousers, or skirts, all throwing themselves down to sleep on the same floor.

And is there after all so very much more of morality in the several classes inhabiting the Fifth avenues and the Champs Elysees of the world? The Lapps have hearts and can love; they have honesty and fidelity and virtue; thieving and conjugal infidelity are hardly known among them—that is stealing from each other, as in Wall Street. There is a place they call the Eden of Lapland, Bosekop, the most beautifully situated of any in Finmark, and of which little is said that might not compare favorably with the Euphrates Eden.

Though the interiors of the Lofoden islands are for the most part uninhabitable, fishermen occupy the shores, rich in their simple possessions and their contentment. To escape the taxations and impositions incident to urban life one may well give up some of its luxuries, or even its so-called refinements. The fishing station of Henningsvaer presents a busy scene during the season. Hither come craft of all sizes and patterns, schooners, sloops, and whaleboats, some to sell and some to buy. The water is white with them while on the shore the log houses are almost covered with barrels of cod livers, the ground being thickly strewn with cod's heads and refuse. The richest man in all this region is said to live here, having acquired a fortune of a quarter or half million of dollars through trading in fish. Another fishing station is Stamsund, where good cod-liver oil is made.

A small interior though somewhat famous town in Norway is Eidsvold, the birthplace of Norwegian liberty. A thousand years ago a wild democracy was here established, acknowledging as king Halvdan the Black, father of Harald Haarfager. Assemblies were held and laws made by ballot. The centuries passed by; from the dust of the earth sprang myriads of kings, and to the dust they returned. And still on the 11th of April, 1814, we find a convention at Eidsvold adopting a constitution and electing Prince Christian king of Norway.

One may ride by rail from Eidsvold to Christiania, the modern capital of Norway, and find there, at the head of one arm of the fiord which here runs in some 60 miles from the German ocean, a city full of bright, intelligent, industrious people. It was near this spot that once stood the ancient city of Osloe, founded in the eleventh century, and after the union with Denmark in 1380 becoming the capital of Norway, the place where James of Scotland married Anne of Denmark. When it was burned, in 1624, the present city of Christiania was built, having now within its precincts many rich and cultured people, occupying beautiful homes, with royal palace, royal park, parliament house, university, museum, and all the accompaniments of high civilization.

Stockholm is one of the many northern towns that resemble Venice. Standing on several islands, with little screw steamers darting between them like swallows, the fine docks, well-kept streets, extensive

parks and gardens, and beautiful houses, are all significant of a modern progressive city. It was on the largest of Stockholm's islands that the imprisoned Finnish princess, Skiolfa, strangled with his own golden chain her captor, Ague, king of Sweden, and on the same spot, ten centuries afterward, Birger Jarl erected the stronghold from which grew the present city. Noticeable from any eminence are the towers of Storkirka, the Riddarhus, or House of Nobles, the Riddarholm cathedral, the turrets of the prison, the royal palace, and the blocks of tile-roofed dwellings.

On the island of Lofo one may see the royal residence and castle of Drottningholm, begun by Queen Hedvig Elenora of Holstein, widow of Charles X, and completed during the reign of her son Charles XI toward the end of the seventeenth century. The palace, an imposing pile standing near the water, was built by the Tessins, father and son. The grounds are well laid out, avenues of lindens diverging in every direction from the castle. In the garden, which is entered by steps from a terrace that stands amid lakes and fountains bordered by vases and statues in marble and bronze, is a theater de verdure, a unique structure of clipped trees in the form of a building, constructed under the direction of Gustavus III for the acting of French plays.

Amid the mazy walks of this garden, and half hidden by the trees, are a Swiss cottage, a hill and statue of Flora, a Kina slot, or Chinese castle filled with curiosities, which King Adolf Frederick presented to his queen Lovisa Ulrika, on her birthday; also a reproduction of a Canton village, near which steel and iron works were once carried on under the immediate superintendence of the king.

West of Lofo is the isle of Biorko, on the northern end of which are remains of the ancient birka. It is stated by Rimbert in his biography of Archbishop Ansgarius that this was an important and famous place, where dwelt many rich merchants with their treasures carefully stored. Once the deposed King Anund came upon them at the head of a band of Danes, whom he had induced to take service with him, and the merchants were glad to pay 2,000 pounds of silver to be left in peace.

The town of Strengnas contains a fine cathedral, 300 feet in length, built in 1291, and where Charles IX and other notable men were buried. Then there is the chateau of Fiholm, not far away, which was once the property of Axel Oxenstjerna, minister of Gustavus Adolphus. Up the river, at Eskilstuna, is a large manufactory of arms and cutlery. A canal extends from the Arboga to Lake Hielmar. The town of Nora is the center of the iron fields of Pershytte, Dalkarlsberg, Striberg, and Klacka. The mediaeval town of Vesteras has a cathedral built in the twelfth century, 306 feet in length, and with a spire 320 feet high. Erik XIV is buried here.

Every government regards itself as the best; every army esteems itself the bravest; every religion considers itself the purest, and every aristocracy tries to believe itself the highest. In cases of relative nobility lapse of time entitles to precedence, and it matters less how than when our ancestors rose above the rabble and caught the trick of domination. My ancestor of remote degree may have gone to the crusades a slave and returned a wealthy officer; he may have been a bold Scandinavian sea-robber, or a crafty Italian cutthroat; or have he may have sold soap, slept in a brewery; he may have torn the raw flesh from the bone with his teeth or have fed on nuts and slept in trees. The ascendency once acquired and maintained, how it was accomplished matters little; we can plume ourselves on our superior The respectability just the same. Almighty himself does not disdain to accept from his votaries the spoils of victory.

Many of the present castles stand on the sites of former castles which met with destruction, showing severe treatment on the part of enemies. Such an one is Gripsholm which rises out of the foliage on a tongue of land near Mariefred, jutting out into the fiord. The first building dates from the fourteenth century and lasted about a hundred years; the present one was built by Gustaf Erikson Wasa I, who completed it in 1537, calling the four towers after his sons, Erik, Johan, Magnus, and Karl, the castle itself not bearing its modern name. Two large cannon, captured by Count Jacob de la Gardie at Ivanogorod in Russia in 1612, lie in the outer courtyard.

In the picture gallery are about 2,000 paintings, many of them valuable and important as representing long lines of sovereigns whose authenticated portraits nowhere else exist. Upon the death of Gustav Wasa the place fell to his son who afterward became Charles IX, and later to Bo Jonsson Gripsholm who gave it his name, and of whom more hereafter.

In the southern and central parts of the peninsula are some large landed estates with fine old castles and chateaus; entailed among the old families are many more of these estates, which have on them little to show of wealth and refinement. There are ancestral homes, for the most part of fourteenth century construction, which contain a riddarsal, or knight's hall, lined with armor, and apartments on whose walls hang valuable art treasures by the old masters. In the Swedish province of Sodermanland are several fine stretches of scenery dotted with commanding castles and retired chateaus,—the De Greet family estate of Stora Sundby; the Bonde family entailed estate of Safstaholm, near Wingaker; and finest of all, Eriksberg, with its castle 200 years old, belonging to another branch of the Bonde family, the main part of stone, with wings for picture gallery, chapel, and library.

In a forest on the shore of the bay of Sko are the castle and cloister of Skokloster built in the thirteenth century. The latter was destroyed by fire, but the monastery church remains standing not far from the castle. Within are the fruits of many robberies, the pulpit, altar, and ornaments coming from Germany. In the chapel is the equestrian statue of Karl Gustaf Wrangel, general of Gustavus Adolphus, and on the walls are representations of his campaigns. Skokloster was given by Gustavus Adolphus to Wrangel, whose son built what was then the finest chateau in Sweden,—a beautiful structure of four stories in form of a square enclosing a court, the four towers by which it is flanked being equal to another story. The Wrangel coat of arms is over the principal entrance, while supporting the arch of the vestibule are eight marble pillars presented to the owner by Queen Christina. There are many rooms filled with portraits of famous fighting men, and in the collection of weapons, of which there are nearly 1,300, are firearms, crossbows, and swords ornamented with gems. A shield which belonged to Charles V is lure, brought by the Swedes from Prague when they sacked that city. Gilt skins and tapestry, presented by Louis XIV, adorn the walls of the grand apartments, not to mention Venetian mirrors, cabinets inlaid with precious stones, and specimens of rare china. Next to Gripsholm the finest collection of historical paintings is here, and Skokloster has also a library of 30,000 volumes.

A beautiful trip across Sweden can be made by the Gota Canal, in the vicinity of which are some fine estates of the old families, as Oxenstierna, De la Gardie, Stine, Brahe, and Bonde, though not all of them are here at the present time. This canal, which connects the Baltic with the German ocean at Gothenburg is a fine example of engineering skill. It is not a continuous cut, but consists of ten sections, with locks of well-dressed stone, connecting seven lakes with rivers and bays so as to afford continuous navigation for vessels of moderate size.

It is some 300 feet above sea-level at its highest point; 259 miles in length, 10 feet deep, 48 feet in width at the bottom, widening to 88 above, and has 74 locks. Travel by a wateway like this is necessarily slow and restricted, in these days of rapid transit, but the canal is undoubtedly an important factor in the development of the country.

An interesting place, and with much of the grotesque is the old church of Osmo, not far from Sodertelge, where may be seen depictured the devil as he is. Passing toward the canal we come to Tullgarn, a royal chateau and summer residence. Entering the Slatbaken fiord, soon is seen to the southward, rising from the foliage, the ruined tower of Stegeborg. If there are fewer ruins in Scandinavia than in some other countries, it may be because the Vikings found it easier to take their castles from others than to build them; or the work of the spoiler here may have been more thorough than in England and Italy.

On the shores of Lake Roxen are the ruins of the castle of Stiernarp, where once lived Robert Douglas, the Scotch earl who served under Gustavus Adolphus in 1631. The Wreta church, near Berg, stands on the site of an old Benedictine monastery, which afterward belonged to the Bernardines, noted for its nuns. Here lie the bones of departed kings, Ragwald Knaphofde, Inge the Younger, and Valdemar Birgersson. Ekbyborna church is on Lake Boren, and nearby Ulfasa, the dwelling of the Folkunga family six or eight centuries ago. Motola, where are large machine-shops, is on Lake Vettern, near the mouth of the Gota Canal, and twelve miles away to the north are the mineral springs of Medevi. A place celebrated in past times was the monastery of Vadstena, founded by St. Birgitta in 1383, and long in close communication with Florence and Rome. Though the monks were poor men's sons, women of high degree found refuge here from earthly sorrows, and kings and nobles craved for their final resting-place a corner in the church, and they were willing to pay for it; so that silver and gold flowed into the sanctuary, which became rich as well as famous. Two golden crowns, Queen Philippa gave, worth nearly 2,000 marks, as well as a golden tablet, a golden necklace, a golden girdle, and precious stones, worth 2,000 marks more. Two brothers of the Bielke family, Sten and Ture, gave in 1412 a silver shrine worth some $50,000, wherein to place the sacred bones of St. Birgitta; the record does not state how the money was stolen.

But it is on record that the nobles were very wealthy in those days. And why should they not be? They were strong lusty fellows; fighting was their greatest pleasure; Odin was ever ready to receive the spoils; the halls of Valhalla ever awaited their reception should they die in battle and to make successful raids on the rich southern cities was no difficult matter.

Thus while it was not Odin now, but Christ, and the later name for Valhalla was heaven, why should not the Northmen be liberal to the church? When Karl Knutsson gave a feast, the table was loaded with gold and silver ornaments and the food served on 1,400 silver plates. At this same Birgitta convent the devotees did not starve themselves; for the use of 25 monks and 160 nuns were annually provided 120 oxen, 300 sheep, 300 swine, 2,400 pounds of cheese, 30 barrels of butter, 200 bushels of barley, 1,200 bushels of malt, 100 bushels of wheat, and 500 bushels of rye, besides the poultry, fish, and game presented by rich and poor alike. It came to pass that King John III once wanted money; so he melted down the silver shrine presented by the Bielke brothers, giving the bones of Birgitta instead a red velvet casket, which was just as well or better than the one of unregenerate metal.

As an example of a rich medieval Scandinavian I will mention Bo Jonsson Grip, of Gripsholm, and other places, whose body lies interred in St. Birgitta church. Grip was a man of nerve, and he added to the great wealth which he inherited by innumerable ways and means of which the world is not wholly cognizant. Though not a king, he made war and levied tribute, as did kings and Vikings. He once even threatened the Hanseatic town of Dantzic, but accepted peace, for a consideration. He was a good man too, that is to say pious, a good Christian, building churches and giving liberally to the poor; for he believed that his success in fighting and robbing came as a reward for his patriotism and good deeds. He was thrifty; for when already the richest man in Sweden his first wife, Margaretha Poise, died pregnant, and being also very rich in her own right, he bethought himself how to obtain her money. Now the Swedish law was such that the husband of a dead wife could inherit only through the medium of a living child; wherefore Bo Jonsson had the body opened and the child shown alive. The clergy were shocked, and Bishop Nils, of Linkoping told Bo Jonsson that he had committed a great sin, and to appease the bishop he was compelled to give to the church eleven farms and 300 marks in money.

Bo Jonsson was a mighty man and should have been king; but he was wise and preferred being riksdrots, or chancellor, for as such he could gather a greater harvest and with less accountability. But estimable as he was in all his ways, and very rich, Bo Jonsson had his little troubles as well as others. Once a fine young fellow whom he had taken to his heart, and educated, and knighted, bestowing on him great favors, and wealth, giving him Farla, a fine chateau, and other estates in Ostergotland,—this young man brought on him a serious fall from grace. Karl Niklasson was his name, a youth of noble blood and bearing, and although Bo Jonsson gave much he was richly rewarded for his giving, for Karl was brave and helped to swell the others coffers. Naturally, in due time Karl fell in love, for all the maidens round loved him; Margaretha was the name of the damsel he preferred, and her father was the nobleman, Lambert Eriksson of Kimstad, whose chateau Overlooked Lake Roxen. Seeing Margaretha one day, and wishing to possess her, Bo Jonsson sent Karl away, and on his return killed him at the high altar of the church; which grievous offence again brought him into trouble with the clergy, so that he had to give away many marks.—1,000 each to Upsala and Linkoping cathedrals, and 500 each to Strengnas, Vesteras, and Abo. And the more completely to restore his popularity and good name, he gave five marks to every church and parish and parish priest where he held property, and that was everywhere for many miles around.

Bo Jonsson died and was buried. Possessing much, he gave much. Being wise as well as wealthy, in death as in life he made it his business to look out for himself. Having been Swedish chancellor on earth, he would be still Bo Jonsson in heaven, a man spoken and thought well of by men and angels. His body lies entombed in the church of St. Birgitta, in the midst of good company, having for companions in death Gustaf Olofson Stenbock, Josse Erikson, Prince Magnus, and queens Philippa of England and Katarina, consort of Erik XIII.

It was in 1386 that Bo Jonsson Grip, of Gripsholm, died. After bequeathing to various persons and charities 57,500 ounces of silver, his ready money, he left as belonging to his estate lands, chateaus, and castles throughout the entire kingdom, extensive domains in Ostergotland, northern Smaland, and Jonkoping, with Ydre, Kind, and Tiust districts, and the castles of Stakeholm and Rumlaborg; Norrland and Ringstadholm castles; Forsholms castle, and the districts of Mark and Kind, of Vestergotland, and part of the Wennern shore; south-eastern Sodermanland, with Nykopings castle; Stockholm castle and south-eastern. Upland; part of Vestmanland including Dalarne and the mining

regions; most of Calmarlan with Calmar castle; Raseborg, Korsholms, Aby, Viborg, and Tavastehus castles; and as if that were not enough, all Finland,—more of this world, I fear, than he found corresponding credit for in the world to which he went.

The ruined castles and monasteries of Scandinavia became as a rule so utterly ruined that it is a pleasure to meet with a fine edifice like Alvastra cloister, not far from Vadstena. Built about 1150, it was occupied for a time by Bernardine monks, and afterward by nuns. Although the remains of many kings rest here, a large part of the structure was carried away as material for building the castles of Visingsborg and Vadstena. Visingsborg castle, on the island of Visingso, was built in 1657 and burned in 1718. The church here is of stone, with ornamented portal, silver tablets on the walls, and statue of Pehr Brahe in the chancel.

Not a few of the farm-houses in Denmark are tastefully fashioned and elaborately ornamented. A cluster of farm buildings makes a pleasing picture, each being placed in position with careful regard to uniformity of plan. In the cities and towns the buildings are very substantial, though often quaint in design. On the island of Zealand, as well as elsewhere in this low-lying land with its moist climate, care is taken in the better class of structures that they be as warm and dry as possible, many being roofed with tiles. Roeskilde was once the king's residence and Episcopal seat of Denmark. It contained, besides the royal palaces, twenty-six churches with their cloisters, and here was all the pomp and magnificence, within and without, which was deemed requisite to sway the scepter of the Scandinavias. Canute the Great was master, though nothing now remains of his glory except for his cathedral, the finest in Denmark and containing the tombs of kings, among others that of Christian IV, with a statue by Thorwaldsen. Erected in the middle of the twelfth century, as was common with regard to mediaeval edifices in the north many additions and alterations have been made not, always to the improvement of architectural effect. The facade is of wrought stone, and the chancel spacious and lofty.

Zealand is filled with archaeological relics significant of mythological and pagan history, —tombs, runic stones, funeral piles, engraved rocks and the like.

The Kongens Nytorv, or new market, of Copenhagen serves as a point of separation between the commercial and aristocratic quarters. Houses of the seventeenth century stand on one side of the large square mansions, some might call them, and at all events belonging architecturally to the German renaissance. A more attractive square is the Amalienborg, surrounded by palaces, and containing an equestrian statue. A seventeenth century structure not far away is the Runde-kirk, erected by Steenwenkel, a pupil of Tycho Brahe, and an engineer as well as an astronomer, the style being what has been termed Jesuit architecture. On the top of the tower is a pyramidal structure, with an open path hollowed out of the tapering spire and leading to the top. Then there are the Frue-kirk and others, but none of special interest

Before the gloomy entrance to the courtyard of Christianborg, which is a cluster of palaces rather than a palace, stands Thorwaldsen’s sculptured Jupiter, with his Hercules on one side of the gate. In the court reception room known as the hall of the knights is Thorwaldsen’s frieze representing the expeditions of Alexander. Though small for a royal chateau, Rosenborg, in Rosenborg park, with space in front for military reviews, and a statue of Christian IV in the courtyard, is one of the most attractive residences in Copenhagen. Occupying one side of the Slotsholmsgade is the Exchange, with

a spire of wood covered with lead, to which is given the form of four monsters, their heads resting on the four corners of the tower and their tails curling round the spire upward to the top.

In 1871 was erected outside the city of Copenhagen, near the Norrbro, at the end of the park, an exhibition building, rectangular in form, 492 by 295 feet, with a court in four compartments covered with glass. It would have been made entirely of glass, if glass could withstand the snow and wind; but as it was intended to be permanent, greater solidity was given to its construction, so that it is now considered the most important modern edifice in Denmark. The ancient quarter of Copenhagen is cramped by the useless ramparts which surround it; while in the new portion is ample space with much of beauty and convenience, with parks and gardens and broad avenues bordered by elegant homes.

The Thorwaldsen museum is a lengthy structure standing on one side of the Christianborg, its front ornamented with Etruscan paintings representing the life of the sculptor, while within are many of his works, and an extensive collection of northern antiquities. No less interesting is the Ethnographical museum, containing objects illustrative of the progress of civilization in all parts of the world.

In Elsinore's one large street, which runs parallel to the sea, stands an imposing town-hall, but the tomb of Hamlet and the weeping brook into which fell Ophelia are not visible. At the end of this street is the Kroonborg, or castle of the crown, erected by Frederick II for the purpose of enforcing payment from ships of sound dues, though regarded by engineers as ineffectual for the purpose, and practically of little value.

I will only further mention the very peculiar Kallstad church, near Vadstena, the middle part raised high above the front and rear; the manufactories of Jon- koping, where snuff, cigars, wallpaper, and chemicals are made; the rifle and sewing-machine factories of Husqvama; the ruins of the ancient castle of Nasbo, seen under the water on the island of Visingso, where relics of the iron age appear in the graves and about the grounds, and where lived and died the twelfth century king Karl VII, and also Erik X, Jahan I, and Magnus Ladulas.

In 1561 the island came into the possession of the Brahe family, who continued to be its owners until the fortified castle of Visinborg was completed in 1657. Then there are the fortifications of Carlsborg; the walls of an ancient castle eight feet thick on Lake Ymsen, where gold rings and chains have been found bearing date 1229; the mining district of Filipstad and others in the province of Vermland; the old wooden fourteenth century Scandinavian church of Rada, in Vermland, its unique interior embellished with odd scriptural paintings; the Karlstad iron and other factories; the elegant private residence at Hellekis; the chateau of Borstorp, the name of the builder, Baron Falkenberg, and the date, 1646, being visible in iron letters. There are also many mediaeval stone churches with rounded towers and pointed arches, containing carvings in wood and stone, baptismal fonts, pulpits, embroideries, shrines ornamented with chased silver or enameled copper, and the like, such as may be seen in Eriksberga church, in Vestergotland, and in the churches of Visingso, on the island of that name, Vafversunda in Ostergotland, and Husaby on the bay of Kinne.

Norrkoping, at the head of Braviken fiord, is the first manufacturing town not only in Sweden but in Scandinavia. Among the factories here established are sugar refineries, breweries, tanneries, machine-shops, iron-works, paper-mills, lithographing and printing establishments, and places for making chemicals, matches, hosiery, and starch. Some ten or twelve thousand persons are thus

directly or indirectly employed; the latest and best machinery is used; honesty and fairness are characteristic of the Swedish employer, and cleanliness and thrift of the Swedish artisan. Near the Finspong iron-works, eighteen miles distant, is a castle built in 1668, and several beautiful parks. The Finspong iron and cannon works were established by the crown in the sixteenth century, sold to Louis de Greer in 1641, taken back by the state in the time of Charles XI, and afterward again turned over to a younger Louis de Greer, who controls with the shops 96,000 acres of land. The wealthy men of Norrkoping have beautiful homes in the suburbs, made picturesque by adjacent ridges of granite and groves of pine, fir, and birch. There are also excellent schools, a technological institute, library, and the rest; indeed, education is nowhere better conducted, being compulsory throughout the greater part of the peninsula.

A very old inland town is Linkoping, on the river Stangan, with a twelfth century cathedral and a castle considerably younger. In this vicinity is now the chateau of Lofsta, and further away are Sturefors, Saby, and Brokind. The copper-mines and smelting furnaces of Atvidaberg belong to the baron of Adelsward, who has some 60,000 acres of land in the vicinity. At Kalmar, where is a twelfth century castle, are some old ramparts in which the people take pride; in ancient times this was a great marketing place, and otherwise of importance. Hagby church is a curiosity; in style of architecture resembling a candle-extinguisher, the circular top, as the people claim, being of heathen origin. Voxtorp church, similar in style, is no less peculiar. The rich man of this vicinity is Mannerskantz, whose fine house, called Varnanas, was once the home of a jarl, then the property of Gustav Wasa, and later belonged to Axel Oxenstjerna.

The province of Bleking is famed for the beauty of its scenery and the beauty of its women. Hundreds of lakelets, luxuriant woods and fragrant flowers; thatch-roofed red houses; a sea and bare granite hills; whirling windmills, faithful dogs, farmers' carts, and rollicking children—let each one fill out the picture to his fancy. We have had enough of old castles and cathedrals of rich men's houses and dead men's sanctuaries for the present chapter; so we will pass by Karlskrona, with its fortifications, cannon balls, and dismantled battle ships; and likewise famed Johannishus, a beautiful suburban chateau; and the celebrated spa of Ronneby; Diupadal, where wood-pulp for paper is made; the church of Hoby, the burial ground of the Vikings; the chateaus of Lake Ifo, Christianstad, Rabelof; the chateaus of Istad, and many other interesting places and things.

And yet one more, Alboke, on the island of Oland, has many antiquities; ruins of the castle of Ismanstorp; an ancient church; ships of the Vikings, or of their ancestors, and graves containing Roman ornaments in gold and bronze. The old castle at Borgholm, on this island dates from 1280, and was occupied in 1312 by Waldemar of Sweden and his wife Ingeborg of Norway; afterward it was destroyed and rebuilt by King Johan in the sixteenth century. What a history have these old piles of stone, whether standing or scattered, these castles and cathedrals, what stories they could tell, each the story of itself, and together almost the story of a nation!

Here is a portion of one. Jarl Asbiorn was brave and treacherous; brave because he was a Northman, and treacherous because his hair was red. Jarl had a daughter so beautiful that the birds stopped singing as she passed by, and so haughty that everyone called her Proud Karin. Fourteen young girls she had for her maids, and one day, when they were out among the flowers, came suddenly upon them in his ship Harold, son of the Danish king, and Canute's nephew. Listening to Karin's voice as to the voice of an angel, Harold loved, and loving caught and carried her away, for so proud Karin

delighted to be wooed. Prompted by Asbiorn, Harold excluded Canute from the kingdom; but enticed to return, Asbiorn slew him at the altar of St. Albans.

Miscellany

When Harold the Fairhaired had made himself king of Norway lie reinstated the earls who had favored him in their former possessions, permitting such of them as had a following of sixty warriors or more to retain one-third of the taxes collected. Of some of these, however, like all new-made monarchs, he was at times furiously jealous. His first victim was Thorolf, a brave and chivalrous noble, high in the king's favor. By inheritance and marriage Thorolf became exceedingly rich, lived in great state, and was known for his magnificent hospitality. On one occasion he gave a feast to the king, at which were 800 guests, and such was the splendor thereof, that into the king's breast came envy and hatred as he sat in his high seat sullen and gloomy; and not long after Harold deprived Thorolf of his honors and emoluments and then treacherously slew him.

Riches poured in on Harold, and he learned to scatter his gold with a liberal hand, and yet in small things he was small, his retainers complaining that they had not enough to eat. Harold was succeeded by Erik Bloodaxe, and he by Haakon the Good, who ceased to tax the land and so could not maintain an army. The sea-coast was left to the defense of the inhabitants. This was in the tenth century, and meanwhile the king's sons and others went on Viking expeditions and brought home fame and much treasure. The earls of the Orkneys paid tribute, and revenue from the nose-tax came in with regularity. Many mistresses the earls maintained, and the tooth-gift was no mean contribution. The slave-market drove a fine business, and many Norse merchants became rich. Olaf Tryggvesson with a large Viking fleet appeared on the coast of England in 994, and was paid £10,000 by Ethelred II to go his way and leave the country in peace. Murder was quite in fashion, robbery brought wealth and renown, and war was the favorite occupation. Then came Christianity, recognizing Thor and Odin, not as good gods, it is true, but as evil deities. Rich and powerful was Sigrid the Haughty, mother of the Swedish King Olaf, and widow of King Erik the Victorious. Worried with wooers, she fired the hall in which they slept, saying. "I'll teach these little kind's to come hither on such an errand."

The heroic age continued, and the Vikings found Vinland. Then came to the front Olaf the Saint, and a bad saint too, gathering plunder in Sweden and fighting the Danes. Then the Scandinavian nations came nearer together, and morals improved; private murder went out of fashion, and the land-tax came in again. Christmas gifts from the peasant to the king were determined by law. Magnus the Good began his reign, and when he had ruled nine years, his rich but avaricious uncle, Harold Sigurdsson, demanded half the kingdom, and the records of king's quarrels, called history, continued.

When Olaf the Quiet came into power he cultivated the arts of peace; commerce flourished, and Vikings became merchants as - well as pirates. Even royalty did not disdain traff ic. Olaf the Saint, for instance, w as partner in a certain voyage with the merchant Gudleik Gerdske, and Harold Hardruler farmed out to his followers the trade with the Finns. Until this time the wealthiest lived but in a poor way,—coarse food, houses containing but one room, the beds closed off in alcoves, the bare earth for floor, and a hole in the roof for chimney. But this quiet Olaf introduced and encouraged luxury. An indolent youth, though avaricious withal, was Eystein, who came into the kingdom in 1142. Other monarchs followed; then civil war, and after a century of peace, although no great progress had been attained, four centuries of decline set in. Under Danish predominance the position of Norway was not pleasant. Fraud and favoritism attended commercial and political transactions, and while the populace remained poor, Vincent Lunge, Hannibal Schested, Hartvig Krummedike, and others

acquired vast estates. Upon gaining the ascendency and holding Norway as a province, Denmark had rather the best of it for a time. When the country accepted the Lutheran religion, church property was confiscated by the crown and given to the king's favorites. The catholic bishops were removed and the churches and monasteries plundered.

Among the Olympian deities the idea of wealth referred to things in the earth rather than to anything above it; hence Pluto, the god of Hades, was likewise the god of riches. In Norse mythology, the dwarfs, who dwelt in the heart of the hills, and whose father was Ivaldr, were custodians of the metals and precious skilled workers. Their voice was the stones, in which they were echo, and he who would find favor with them must offer a black goat or a black cock. They worked for Odin, and likewise made the hammer of Thor, which to the pagan Scandinavian was as the cross of Christ to the Christian. There were also heavenly treasures, the golden sunlight guarded by Fafnir. Among the Hindus the sun-god Savitar was golden-eyed and golden-tongued, and when at a sacrifice he cut off his hand, the priest replaced it with a golden one.

In Denmark, during the reign of Christian III, the worst depredations were committed by the nobles, over whom the king lost all control. The Old Danish nobility became wealthy as well as politically powerful, and when Frederick III became king of Denmark and Norway, he had no easy time of it. His son Christian V was a foolish spendthrift, whose course was modeled after that of Louis XIV of France. German became the court language, and to Germans were given lands and lucrative positions. Loyal subjects, Danes and Norwegians, were sold into foreign service, and the money squandered in dissipation.

The successor of this spendthrift, Frederick IV, whose reign began in 1699, was as shrewd as he was penurious and heartless. He went to war with Charles XII of Sweden, and gained nothing by it; Charles fought Norway, and gained as much. He sent Colonel Lowen, with 600 men, to demolish the silver mines at Kongsberg, but the colonel's command was destroyed instead. After Norway recovered independence, and the peasant party came into power, times were better. The Norwegian merchant marine became one of the largest in the world, and commerce and manufactures brought wealth to the nation. The clause in the constitution excluding the Jews was repealed in 1851. Telegraphs and railways bear witness to the increase of wealth and prosperity.

Mythology refers the origin of amber to the tears shed by the sisters of Phaethon upon receiving tidings of his death. Before it was known to be a resin, the inhabitants of the shores of the Baltic, where it was found at an early date, called it meerschaum, or sea-foam, supposing it to be the hardened froth of the waves, the world at large not knowing until later that the soft, soapy earth or mineral going by that name is found near the Caspian, and in places in Russia and Turkey.

In the days of King Frode, of Denmark, men carried their money in the form of gold and silver chains, and when a payment was made, the links were broken off as required.

In Weinhold's Alt-Nordisches Leben it is written:—King Canute the Great sailed to England with 1000 great vessels; Knut Sveinson came to Norway with 1200 ships; Harold Gormson sailed from Denmark with 700 vessels; Eymundi made an expedition against Norway with 600 ships; and the Jombourg Vikings alone had 180.

The Plutus of Scandinavian mythology was Gulvigar, weigher of gold, who introduced the love of gain among men.

One of the Erics of Sweden was called Windy Cap, because by turning his cap he could bring the wind from any quarter he chose. The Laplanders used to sell wind to sailors one Bessie, Miller of Pomona, as late as 1814 driving quite a trade at sixpence a gust.

The Edda, compiled by Saemund Sigfusson, the Icelandic priest, surnamed the Wise, contained all the heroic and legendary lays extant at the end of the eleventh century.

We use gold now to make teeth, but Tycho Brahe, the Danish astronomer, replaced with a golden nose the one of flesh which he lost in a duel with Passberg.

While the beasts of Norway are small, stubby, and tough, the horses with short legs and bodies and thick neck and head, the cattle shriveled and the dogs mongrel, man is a somewhat noble animal, with fair hair and a large muscular frame.

The isolated city of Bergen, with its 50,000 inhabitants, is mother of the fishing industry and mistress of the surrounding stations. Little is known or talked there but fish; fish are meat and money; you may buy a herring's worth of bread, or a salmon's worth of raiment. The annual catch of 65,000,000 cod is worth $7,500,000.

In mediaeval times pirates would come up from the Mediterranean to ravage the coasts of Sweden and Norway, while the Vikings were prowling about southern seas usually with better results. In 1187 a number of pirate ships entered the Malar, destroyed the town of Sigtuna, and bore off the two large silver doors of the church. By some means these doors found their way to Novgorod, Russia, where they now adorn a church.

There are two institutions in Denmark worthy of notice, the Courts of Conciliation, and cloisters for noble women. Compromise courts are well known elsewhere; they reduce litigation by more than one half, and deliver thousands of honest useful men from the clutches of lawyers and law courts. The Danish cloisters are a kind of female assurance society. Upon the birth of a daughter, a Danish gentleman may deposit $2,000 with the cloister, the child to receive four percent per annum until death or marriage, when the money belongs to the cloister. But if the female remains single, she receives, under defined regulations, first $250, then $500, and finally $1,000 a year. These societies, if properly managed, generally prosper; instance those of Vallo, Vemmeltofle, Gisselfeld, Poeskilde, Odense, and Stovringgaard, founded from 1699 to 1737, and worth from 100,000 to 2,000,000 rix-dollars.

Brace quotes prices at Hammerfest in 1856; rent of good dwelling $60 to $80 a year; beef and mutton 6 cents a pound, milk 6 cents a quart; price of a cow $12 to $20, horse $100, reindeer $3, sheep $2, wages per day 42 to 63 cents without board.

Denmark is a great grain country, besides having fine pasture lands; indeed, to the products of the dairy is attached more value than to the produce of the land.

Denmark has 130 persons to the square mile; imports $75,000,000, exports $60,000,000.

Sweden has 30 inhabitants to the square mile; imports $100,000,000, exports $75,000,000.

Swedenborg, born at Stockholm in 1688, inherited his faith somewhat from his father. He was appointed in 1716 by Charles XII assessor in the Swedish college of mines.

Charles XII became king of Sweden when 15 years of age; at the age of 18 he had forced peace from Frederick of Denmark and had defeated the Russians at Narva; while the victory of Clissow made him master of Poland at the age of 21.

Norway has 18 persons to the square mile, being the most thinly populated country in Europe. Yet there is quite a commerce, $50,000,000 of imports and $40,000,000 of exports. Agricultural property worth $220,000,000 gives returns of $15,000,000.

One church on an average is destroyed by lightning every year in Scandinavia.

Jean (Giraud)—I do not say that for myself, madam, but I know what I am saying; money is money, in whosever hands it is. It is the only power that is never disputed. Virtue is disputed, beauty, courage, genius; money never is disputed. There is not a civilized being who, on rising in the morning, does not recognize the sovereignty of money, without which he would have neither the roof which shelters him, nor the bed on which he sleeps, nor the bread that he eats. Where are going these crowds of people in the streets, from the porter who sweats under his heavy load to the millionaire who goes to the bourse in his carriage? One is running after fifteen sous, another after a hundred thousand francs. Wherefore these shops, these ships, these railroads these factories, theaters, museums, lawsuits between brothers and sisters, between sons and fathers these discoveries, divisions, and assassinations? For a few pieces of this white or yellow, metal that is called money, or gold. And who will be most esteemed in this great race for money? He who gets the most of it. Today a man must have but one object, that of becoming very rich. As for me, that has always been my idea; I have reached it and I congratulate myself. Formerly people thought me ugly stupid, obtrusive; now all think me handsome, intelligent, courteous, and the Lord knows if I am handsome, courteous, intelligent! From the moment that I should be foolish enough to ruin myself, and to again become Jean as before, there wouldn't be enough stones in the Montmartre quarries to throw at my head.

Madame Durieu—Well, my dear M. de Cayolle, what do you think of all this?

De Cavolle.—I think, madam, that M. Giraud's theories are true only in the world in which M. Giraud has lived which is a world of speculation, where the only object is money. As for money it instigates many infamous things; but it also accomplishes great and noble things. It is like human speech, which is an evil or a blessing according to the use made of it. But to the necessity forced upon us to provide for our needs we owe much:— Franklin, a workman in a printers office; Shakespeare, who held horses at the door of the theater which he was later to immortalize; Machiavelli, who was secretary of the Florentine republic at fifteen crowns a month; Raphael, who was the son of a scribbler; Jean-Jacques Rousseau, who was clerk in a law office, an engraver, a copyist, and who still does not eat every day; Fulton, who was at Brat a boatman afterwards an engineer, and who has given us the steamboat; and there are many others. Suppose them born with £500,000 each, it is not likely that one of them would have become what he did become. So this race for money, of which you are speaking, has some good in it. If it enriches some idiots or some rascals, if it procures them the consideration and the esteem of subordinates, of inferiors, in fact of all who have nothing to do with society except with their accounts, it does enough good in another way, by spurring up faculties which would remain stationary in comfort, to be pardoned for some little errors.

From Arctic tundras covered with moss and lichen the realms of the tzar extend southward to the vine-clad hills of Turkestan, and eastward to shores where the warm breath of the monsoons comes moisture-laden from the sea of Japan. To describe the physical features of all the Russias would be to sketch the surface of one-sixth of the globe, forming a compact and solid domain of immense extent, and without oceanic possessions except for the islands which skirt its coasts. Toward the south its limits are being constantly enlarged, never remaining the same for ten consecutive years. Beyond the Caspian the Turkoman steppes have been gradually absorbed; with Khiva and Bokhara among her dependencies, Russia is already at the gate of India, and on the east her boundaries adjoin those of China, the great overland route to Peking by way of eastern Mongolia, being under Russian control. All this mighty empire with its 125,000,000 inhabitants is of comparatively modern growth; for it was not until the eighteenth century that national unity was established, or that the nation made itself felt among the more civilized countries of Western Europe. Before that time less was known of Russia than is known today of the least important of her Siberian provinces; her progress was slow, her origin obscure, and as yet the country had few historic annals except those of Novgorod and Moscow, where princes, khans, and tzars held court in barbaric splendor.

To Scandinavian Vikings, termed in the Swedish rothsmen, that is to say rowers, or seafarers, is traced the Origin and perhaps the name of the Russian empire; though in the middle of the ninth century there are uncertain records of Slavonic settlements on the banks of the Dnieper. In 862, as related in the ancient Chronicle of Nestor, the Slavs of Novgorod, distracted by internal dissensions, invited three of the great Viking lords, who were also brothers, to dwell among them and settle their disputes.

"Our land is great and fruitful," they said, “but there is no order in it; come and reign over us.” They came and brought with them their armed followers, Rurik, the eldest, being appointed chieftain and succeeding to the domain of his brethren, who died some two years afterward. Under Rurik and his successors the town of Novgorod prospered exceedingly, so that it became one of the wealthiest cities of the Middle Ages, the center of a powerful and independent state, whose empire extended to the Gulf of Finland and the White Sea. In the fourteenth century its Kremlin, or fortress, contained several churches, among them the cathedral of St. Sophia, almost as now it stands, while its commercial importance was further increased as one of the principal depots of the great Hanseatic league. The republic styled itself Sovereign Novgorod the Great, and on its rulers was conferred the title of grand prince, though they had little power except as commanders of the troops, and were liable to summary deposition should they fail to conform to established laws and usages. “If the prince is bad, into the mud with him,” was the saying of the townsfolk, and one on which they were not slow to act.

Meanwhile other powers had come into existence, and especially the principalities of Smolensk and Muscovy, the latter coextensive with ancient Rossia, or Russia, as afterward it was known. Toward the middle of the thirteenth century the Mongols appear upon the scene, ravaging the southern provinces; and though defeated by the men of Novgorod, pillaging the wealthy and sacred city of Kieff. Passing over the intervening period, we come to the days of Ivan the Terrible, whose name is imprinted in blood on Muscovite annals. Crowned in 1547 with the title of tzar, or czar, the Slavonic word for Caesar, a few years later he began the career which for cold-blooded wanton cruelty is not surpassed in the annals of oriental despotism. In his treatment of Novgorod he was especially severe, giving the

place over to plunder and putting to death 60,000 of its inhabitants. Priests were tied to posts and flogged until a sum of money was paid for their release; wealthy merchants were tortured with fire and then thrown from the bridge into the river with their wives and children, followed by boat-loads of soldiers who fired on those who attempted to escape by swimming. With this tragic episode ends the existence of Novgorod as an independent state, while the town itself never again attained to importance.

It is in truth a somber picture that we must draw of Russia when emerging from the darkness of the Middle Ages, with humanity still in the birth-throes of a monstrous unfolding. Historians have called it the golden age of the empire; but excepting a certain barbaric grandeur there was nothing deserving of such a title. Gibbets lined the roadways; axes and blocks were ready at hand, and the groves of Moscow and its suburbs were festooned with the dead bodies of enemies of the tzar, who formed perhaps the largest element of the population apart from the serfs. Among the dark-roofed houses that crowded the riverbanks rose the walls of the Kremlin and other fortifications, built a century or two before, and now standing forth sharply in white and red. Groves and grain-fields mingled with the dwellings, plentifully scattered among which were bell-towers and churches raising their golden domes toward the sky.

Most conspicuous of all was the temple of the*Intercession, fantastic m glitter. Bright paintings covered the outside walls; on every brick was carved a cross; while the whole structure seemed clothed in a network of gold. Money was lavishly spent, for the people loved images, gildings, and rich colors in the house of God, though in their own houses they cared little for such decorations. The abodes of the wealthy were of rounded and even logs of oak or pine, from one to three stories in height, the roof projecting over a circular facade and supported by finely carved pillars. Instead of the ox-bladders which admit ted light to the homes of the poor, transparent mica was used for windows, while on the shutters were neatly painted representations of birds and flowers. Here on the bank of the Moskva they lived, while beyond the river were their storehouses filled with silk and precious furs and silver and gold.

Ivan the Terrible was as pious as he was infamous. He turned his palace into a monastery, crowned as it was by gilded domes rising one above another, and glittering in the sunshine from base to pinnacle with precious metals and colored carvings. Selecting from among the most wicked of the oprichniks, or courtiers, three hundred men whom he called brothers, he threw over their rich kaftans, trimmed with gold and sable, a black robe, gave to each a monk's cowl, and hastened at the ringing of the four o’clock bell to morning service, where the tzar read and sang and prayed with such vigor that his forehead was covered with perspiration. At eight o'clock, morning and evening, they all attended mass, the day apart from religious exercises being devoted to eating, drinking, and dozing, with the pleasurable pastime of beheading criminals and torturing prisoners. Filling the court entrance of the palace were beggars in filthy rags, among whom wild beasts were frequently let loose for the amusement of the courtiers and bodyguard, who stood apart arrayed in velvet and gold, their brocaded caps trimmed with pearls and precious stones.

Behold a feast in the palace of Ivan the Terrible! In a large hall furnished in gaudy colors, the pillars decorated with carved figures, are three rows each of ten tables, each table with twenty covers, and for seats, benches resplendent with velvet and brocade; these for the guests, while for the dread sovereign is an elevated armchair, with carved lions for legs, the back in the form of a gilded double-headed

eagle with outspread wings, all ornamented with clusters of pearls and diamonds. In the middle of the hall stands a large square table with massive legs and top of heavy oak plank, which strong as it is groans under the weight of huge piles of gold and silver plate, enormous bowls of cast silver with ornamented handles, a heavy load for four men to lift; golden goblets inlaid with pearls, cups made of ostrich eggs and horns of wild oxen; gold beakers in the shape of cocks, storks, lions, bears, unicorns, giraffes; besides other dishes, vessels, cups, and ladles of precious metals ornamented with precious stones, all forming huge cone reaching almost to the ceiling. A throng of richly dressed oprichniks in brilliant colors enter and seat themselves at the tables, which as yet are bare of food, save only cold meats, salted cucumbers, sour milk in wooden bowls, with salt-cellars, pepper-boxes, and oil and vinegar cruets.

Next enter the stolniks, in pairs, and take their stand at the tzars chair; after them the steward and cupbearer. The trumpet sounds; the palace bells ring, and with slow step the tzar enters, passing with measured tread between the tables to his place at the further end, and merely glancing at the guests, who stand in attitudes of low obeisance before the great monarch who holds half the world at his beck.

Ivan at this time let us say is thirty-five years of age, but he looks at least ten years older. Originally a well-formed man, with sharply defined features, prominent aquiline nose, thin hair and mustache, he seems at present bent under a load of mingled superstition, cruelty, fear, and remorse. The tall form with its broad shoulders is slightly bent; heavy wrinkles line the forehead, while a gloomy light burns in the deep-set eyes. The long brocade garment which enfolds his person is covered with figures and bordered with pearls and precious stones; the high heels of his red morocco boots are shod with silver; from a massive necklace enameled with representations of the virgin, the prophets, and the apostles, hangs a gold chain with a large figured cross. Standing before his chair, the monarch raises his head, dispels from his sometime handsome features their cloud of care, smiles what seems to the servile and brutish natives around him a seraphic feodor smile, reads aloud a long prayer, makes the sign of the cross, blesses the repast, and sinks into his seat, the oprichniks following his example. At a sign from the sovereign, the scores of servants who stand before him arrayed in bright-hued violet and gold-embroidered velvet kaftans, with heads bowed to their girdles, withdraw in pairs, presently returning with 300 roast swans on platters of gold, and the feast begins. After the swans come 300 roast peacocks, the open tail overspreading the dish. Then follow pates of chicken, fish, and meat, with fritters and pastry, and many kinds of drink, goblets of mead, of bird-cherry and juniper wines and cherry brandy, besides Rhine wine, Romance, and Malvoisie. Eating and drinking continue for four or five hours, after which many of the guests lie drunk upon the floor, under and around the table. In the midst of the festivities, he whom the sovereign wishes to honor receives by the hand of a servant, or of the cupbearer, plate of meat or a goblet of wine, with the message, "the great sovereign has favored thee with a dish from his own table;" “the great sovereign favors thee with a cup.” Thereupon the recipient rises, bows low to the tzar, bows low to the guests who come forward to congratulate him, though too often the cup contains poison and the special dish is but the forerunner of the headsman's axe. Should the favored one drop dead while drinking the courtiers exclaim "Ah! poor fellow; he is drunk; let us carry him forth," which is done; for though well knowing what has occurred, they do not dare to recognize the treachery of the sovereign. Then the feast continues without interruption, as though nothing special had happened.

The reign and life of Ivan the Terrible ended in 1584, his latter days being embittered with remorse and superstitious terror. Then came the series of disasters whence the era that followed was named "the period of troubles." Early in the seventeenth century Russia was overrun by the Poles, thus reversing the conditions which obtained in later ages Moscow was laid in ashes, all except the Kremlin and the churches, and the imperial treasures were transferred to Warsaw.

A large portion of the northern principalities had passed into the hands of the Swedes and elsewhere towns and villages were plundered by roving bands of Cossacks. It was at this juncture that Michael Romanoff succeeded to the throne, a monarch descended on the female side from the house of Rurik and the first of the long dynasty still represented in the person of Nicholas II. During his reign the nation came for the first time under the influence of western civilization; merchants and travelers visited the country, the former receiving valuable privileges, and with the aid of Dutch and German artisans iron-foundries were established, especially for the manufacture of cannon. By Alexis Michael's successor, the laws were codified, and the boundaries of the empire largely extended. Feodor, who was next in power, destroying the records of the nobles' pedigrees which had caused infinite mischief in court and camp.

And now we come to the days of Peter the Great whose rule was shared, but only in name, by his brother Ivan, a man as infirm in body and mind as the other was vigorous and self-reliant. Peter was a man of imperial mold, possessed of Titanic energy, and if an autocrat, he was always ready to take his share of the burdens imposed on nobles and subjects. To carry out what seemed to him worthy aims he sought everywhere for suitable instruments, and after serving the state as a common artisan in the docks of Saardam and Deptford, he expected that others would sacrifice their comforts and if need be their possessions, for the public good. In choosing his servants he paid no attention to the claims of noble ancestry; merit was the only recommendation, and on merit he freely bestowed the rewards and honors which it deserved. Thus one of his most trusted officials was the son of a poor sacristan, another began life as a cabin-boy, a third was a negro slave purchased in Constantinople, while he who became his serene highness Prince Menshikoff, the founder of a line world-famous in European politics, had earned his living by peddling cakes in the streets of Moscow.

Loud but unheeded were the complaints of the nobles, whose estates were sorely taxed, after being converted from feudal into freehold tenures, and their owners required to serve in the army or navy under pain of death and confiscation of property. As related by Vockerodt, a Prussian diplomatic agent at the court of the tzar, the following was the burden of their complaints: "Though our country is in no danger of invasion, no sooner is peace concluded than plans are laid for a new war, which has generally no other foundation than the ambition of the sovereign. To please him our peasants are utterly impoverished, and we ourselves are forced to leave our homes and families, not as formerly for a single campaign but for many long years. We are compelled to contract debts and to entrust our estates to thieving overseers, who commonly reduce them to such a condition that when we are allowed to retire from the service, in consequence of old age or illness, we cannot at the end of our lives retrieve our prosperity. In a word we are so exhausted and ruined by the keeping up of a standing army, and by the consequences resulting there from, that the most cruel enemy, though he should devastate the entire empire, could not cause us one half of the injury.

While this picture is doubtless overdrawn, there is nevertheless some truth in it, for Peter increased his revenues from 3,000,000 to 14,000,000 rubles, expending most of it in maintaining a disciplined

army in place of the armed rabble which a few thousand Swedes had easily put to rout. But the army was the least important part of the creations of the great tzar. While traveling in Western Europe he had observed the wealth and prosperity developed among the educated middle classes, and to the absence of this element he justly attributed the poverty of his empire.

If such classes did not exist, then they must be created, and to this task he applied himself with his usual vigor and directness of purpose. From the west he brought with him a large number of artisans, sending for others and offering special inducements to merchants who would trade with his subjects. Internal commerce was encouraged; manufactures were established, and Russian students sent to complete their studies in the great centers of industrial art. Schools were founded, books translated, and the government of cities was remodeled after that of the free towns of Germany, with burgomasters, town-councils, guilds, and all else that pertains to the ancient municipal system of the Fatherland. It has been said that Peter knouted his people into civilization; but even this was better than the outer darkness in which they had dwelt. Certain it is that Russia was for the first time respected among the nations of the world, and by this enterprising, if somewhat harsh and exacting monarch, were firmly laid the foundations of what is now the largest empire in the world.

In reading the story of his life, as written in part by himself, we find the career of Peter in striking contrast with that of his predecessors. The latter were men of stately and pompous demeanor, much given to religion, spending most of their time in worship, never losing sight of their dignity, and seldom giving thought to their people. But here was one who came down from his Olympus, as did the gods of old, sharing all the hardships and dangers which proved fatal to thousands of his subjects. First working with his own hands as a mechanic, or shipwright, he then superintended the labor of others and saw that their work was well done. While erecting on what was at that time a Finland marsh, the home of the heron and wild fowl, a city which he was to serve as "a window whence Russia might look into civilized Europe." He content to build for himself the wooden hut of a navvy, and there he dwelt without loss of dignity, though ruling with a sway as absolute as that of the Caesars whose title he bore. Nor was it beneath his dignity to dress in foreign garb, to join in the drunken orgies of foreign soldiers, and otherwise to disregard all time-honored notions of propriety and etiquette, so that men affirmed that the Lord's anointed was possessed of an evil spirit. As to religious belief it is doubtful whether he had any; it is certain that he had none of the fanaticism so common among his countrymen. Yet he never interfered with his subjects in matters spiritual, allowing them to steep themselves in piety, to pray and cross themselves to their hearts' content, so long as they obeyed him and paid their taxes regularly. If Peter sometimes misapplied his revenues, he never squandered them, and at least he had something to show for the heavy burdens imposed on the nation adding several provinces to its domain with an outlet on two great seas, an army able to fight a fleet and naval academy, and libraries and galleries of art. On such a man, notwithstanding his failures and eccentricities, the title of greatness is not unworthily bestowed.

On the death of Peter the crown became the plaything of intriguing courtiers until, after vainly attempting to govern Russia through her wayward and dissolute husband. Catherine II drove him from the throne to which she succeeded as empress in 1762. She had a difficult task before her, but was equal to the occasion; for she was an ambitious woman, strong of will, persistent in purpose, and though of foreign birth, with a thorough knowledge of the language, customs, institutions, and needs of the people which for the first time submitted not unwillingly to a woman's sway. At home Catherine devoted herself to law-making and town-building, but with indifferent success, for towns cannot be

built by imperial ukase, and except perhaps a court-house and prison of logs, there was nothing to show that they existed. Forming an alliance with Prussia, she brought about the partition of Poland, securing for herself at least two-thirds of its territory; and this she retained in the later partition which followed the national uprising under Kosciusko. Poland was now in a dreadful condition, greedy and unscrupulous nobles sorely oppressing a brutalized and starving peasantry, among whom famine and pestilence were ever-present guests. A loaf of bread was worth a hundred rubles, and beasts and birds of prey feasted on unburied corpses thrown into the deserted streets. To relieve this misery was no part of Catherine's aim; but rather to prolong it until the country should be thoroughly subdued to the yoke. Meanwhile money was freely lavished on favorites; her lovers, of whom there were not a few, costing in all more than 200,000,000 rubles, even those whom she discarded receiving liberal pensions and presents. The queen has been called, and not inaptly, the Semiramis of the north; for never had such wanton extravagance been witnessed in the Russian court, and never had Russian policy been marked by such hard-hearted cruelty. Yet her memory is still honored in the land of the tzars; for with all her vices Catherine had genius, and genius like charity covers a multitude of sins.

In the reign of Paul I, son and successor of Catherine, began the long struggle with Bonaparte, lasting from 1799 when Suwaroff won several victories over Napoleon's generals, until 1814, when Paris surrendered to the Russo-Prussian army under the command of Prince Schwarzenberg. At Austerlitz the Russians lost more than 20,000 men, and at Friedland suffered a defeat which was followed by the historic meeting of Napoleon and Alexander I on a raft anchored in the Niemen, where was arranged the peace of Tilsit. But the greatest disaster, both to Russians and French, was the war of 1812, whose incidents have already been related, the burning of Moscow being followed by the retreat of the French and the annihilation of the grand army. Nicholas I began his reign with a war with Persia, securing thereby a considerable territory and 20,000.000 rubles as indemnity. Then came war with Turkey, the Polish insurrection, and the Crimean war, the last the most senseless of all and without any practical result; for notwithstanding an enormous expenditure of life and treasure. Russia is now in the same position as before, her fortress of Sebastopol rebuilt, her ceded territory restored, and her fleets no longer excluded from the Black sea.

Nicholas I was the incarnation of autocracy, a man who had he lived in patriarchal times would have been an excellent ruler, but in the nineteenth century was somewhat out of place. With the spirit of the age he had nothing in common; philosophic liberalism and philosophic abstractions of whatever kind he held in contempt. “Attend to your duties." he said to his generals, “and don't trouble your heads with philosophy; for the tzar was himself by nature and training a soldier as well as an autocrat, and the strictest of disciplinarians.

Over his empire he maintained an intellectual quarantine, suppressing all hooks and journals that savored of democracy, forbidding Russians to travel abroad, multiplying military schools, and abolishing in the universities their chairs of political science, thus hoping to guard against the demoralizing influences of independent thought and the consequent dangers of revolution. He regarded his nation as an army and himself its omnipotent head. He punished disobedience with long years of exile amid Siberian wilds, and would tolerate no adverse criticism, even in the form of a jest. Against modern progress he set his face, unless it be in the ordered way and at the word of command, private enterprise of whatsoever kind being discountenanced. Experience taught him nothing; nor yet failure or mishap; for on the theory of government which he had formed he acted for thirty years, with none to gainsay him and none who dared to offer him advice. At the close of his reign, when

confronted with the inexorable logic of facts, when his troops were defeated his, fleets and fortresses destroyed, his ports blockaded, and his empire on the verge of bankruptcy, still the blind obstinacy of the tzar remained unshaken. "My successor may do as he pleases," he exclaimed with his dying breath, "but as for me I cannot change."

One of the first acts of Alexander II was to put an end to the Crimean war, and one of his best was the emancipation of the serfs in 1861, their owners receiving a fair compensation while ceding a portion of their estates. It was in truth a gigantic experiment in social and economic science, with results even yet uncertain, though pointing to improvement when the transition period shall give way to a more settled condition of affairs. One benefit at least it has wrought, and that is to arouse the proprietors from apathy, and compel them to think and act for themselves. For the most part they had formerly looked upon their estates and dependents as an automatic machine, which was to supply them with food and drink and spending money; and they spent all they had and more than they had, taking no thought for the morrow. But now they must earn their own livelihood and earn it somehow from their lands, for nothing else remained to them. Thus the haphazard methods of olden days gave place to systematic farming, though at first with few modern improvements. "Formerly, said one of the landlords, when asked how the emancipation affected him," "we kept no accounts and drank champagne; now we keep accounts and drink vodka. On the larger estates, where hired workmen and improved machinery were introduced, there was a speedy and very considerable increase of revenue. The domain of Prince Wassiltchikof, for instance, lying in the black earth zone of the southern provinces, yielded an average income of 29,000 rubles against 14,000 before the emancipation, while another which produced 47,000 rubles in 1860, netted 77,000 in 1870, though in both the emancipation had been followed by a temporary shrinkage. But such returns could only be obtained through the introduction of foreign labor and appliances; for the peasants, it was said, had become lazy, drunken, and dishonest, working unwillingly in their primitive fashion and refusing to work at all under modern systems of cultivation.

In this connection a word may be said as to the nobility of Russia, concerning which, as of the tzars themselves, there is much popular misconception. The ancient noblesse resembled somewhat that of Germany, consisting of a number of minor princes surrounded by knights and soldiers of fortune, among whom were a few boyars possessed of large estates.

By the Tartar sovereigns they were treated as vassals, though left much to themselves so long as they paid their tribute. Peter the Great, as we have seen, dealt with them merely as subjects, liable to military service as were all the rest; liable also to flogging, exile, or decapitation for overt disobedience Catherine favored the nobles, and with reason, for she was herself a usurper, raised to the throne by intrigues, reign would come to an end to say nothing of her schemes of conquest. Hence she was liberal in conferring honors and rewards, flattering words taking the place of the cudgellings which Peter was apt to administer, and especially the subtle flattery which appealed to their loyalty and devotion. Thus public service, which had formerly been considered as a burden, was now regarded as a privilege, and especially after the introduction of French fashions and ceremonials, which made the court of St. Petersburg as splendid and almost as frivolous as that of Versailles. But, except in aping their manners the Russian aristocracy had nothing in common with the French, nor indeed with the Germans or English. Their ancestors had been insulted by the khans and cuffed by the Lord's anointed; peasants had been exalted above them and parvenus advanced to the highest offices of state, while poverty had driven from the ranks not a few of the oldest families, so that we hear of a

prince who earned his living as a cabman, and of counts who measured ribbons or served as assistants to petty shopkeepers.

While in Russia there are more than a million titled personages, it may be said that an aristocracy in its proper sense does not exist; or if so, the term should be applied only to the highest ranks of the noblesse, even these claiming precedence not in virtue of their pedigree but for their wealth and official rank. A Russian noble, be he baron, count, or prince, may be proud of his riches, proud of his learning and accomplishments, but of his ancestry he seldom boasts, knowing full well how cheap are these patents of notoriety. There are hundreds of princes who are not admitted to court, or into social circles of the better class, though exceptions may perhaps be made in case of marriage with some foolish American heiress. While only a small percentage of the nobles are rich, some are enormously rich. Count Sheremetief, for instance, owning at the time of the emancipation 150,000 serfs with estates to correspond, while the Demidofs count the yearly income from their mines by hundreds of thousands of rubles.

Count Strogonof, who died not long ago at the ago of ninety-two, left from 12,000,000 to 15,000,000 rubles in cash, apart from the value of lands broad enough for the realm of a monarch, though his palace at St. Petersburg, with its magnificent art collection, was ever open to the call of charity and philanthropy. Then there are the Woronzow Dasekous and a few other families whose fortunes are of royal proportions; but as a rule the proverbial extravagance of the Russian noblesse is due rather to reckless ostentation and improvidence than to the possession of wealth.

As there is in Russia no real aristocracy, so are there no social castes, for at least none of the class distinctions and class enmities which have wrought so much mischief in Western Europe. Yet there are differences strongly marked by outward appearance, and there is no mistaking to what rank or calling each one belongs. There is the count with his Parisian attire and speaking in French or attempting so to speak; there is the priest with his somber robes and flowing, unkempt locks; there is the keenvisaged merchant in his suit of shiny broadcloth, much the worse for wear, and everywhere are to be seen the dull vacuous features of peasants garbed in greasy and malodorous sheepskin. Otherwise society is not graded as in other countries; there are few cliques, and there are no insuperable barriers to merit and honest endeavor. What is most of all needed is education, which is still in an embryo condition; notwithstanding a voluminous literature there is little intellectual progress, and sad though it be, it is none the less true that the intelligence of Russia centers largely in its secret societies, which almost throughout the present century have been the terror of the tzars.

It was at the hands of a nihilist that Alexander II met his fate, after several narrow escapes from assassination, attempts being made to blow up the winter palace and to wreck the train on which he was travelling. The tzar left his country burdened with debt exhausted by foreign wars, and honeycombed with revolutionary plots; nor were matters greatly improved during the reign of his successor, whose life was one long nightmare of fearsome apprehensions, while suspected persons were driven by hundreds to Siberian mines and prisons. For more than two years he would not venture on the journey to Moscow, where in 1883 the coronation ceremonies were held. Yet he was no coward but rather one whom majesty befitted, notwithstanding his homely features and his stiff and awkward manners. He was a man of gigantic stature and herculean frame, towering head and shoulders above those around him simple in his habits and somewhat averse to the splendors of royalty, though never forgetting that he was the autocrat of the Russias and the head of the Russian

church. He attended closely to the affairs of state examining accounts and severely punishing defaulters, no matter how high their rank. His uncle, the grand-duke Constantine, he dismissed from his office as lord high admiral on a charge of peculation, while another uncle, the grand-duke Nicholas, commander-in-chief of the army, suffered disgrace for permitting one of his friends to accept a bribe. Though a despot, he was by no means the cruel despot that some would have us believe having really at heart the welfare of his people, as appeared in the famine of 1891, when he advanced 50,000,000 rubles to the relief committee which had before it the appalling task of feeding 20,000,000 starving people.

On the 1st of November, 1894, the reign of Alexander III came to an end not as he had feared from assassination, but after a long and painful illness.

Nicholas II succeeded to the throne at the age of twenty-six, taking to wife soon afterward the princess Alexandra, daughter of the grand-duke of Hesse, a sensible young woman as it would seem, but with all the hauteur of a tzarina. One of the first acts of this sovereign was to proclaim a general amnesty releasing nearly twenty thousand victims of the despotic rule of his predecessors. Then he set himself to reform, as far as he could, a corrupt and cumbersome bureaucracy, removing the unworthy, and especially those who had helped to build up the former system of intolerance and oppression. At first these measures in the cause of common humanity alarmed the conservative party, by whom it was feared that provincial or even national assemblies might be established; but as to this they were soon reassured. Waiting on the tzar, they were informed that he would yield no iota of his prerogatives; whereupon they straightway betook themselves to church, returning thanks for their deliverance from the perils of governing themselves. The day is probably far distant when Russia will be self-governed, except through some terrible uprising which would shake the world to its center; for here is a standing army of nearly a million of men, to say nothing of an army of secret police. Meanwhile if the tzar will adapt himself to modern ideas of progress and toleration, and above all will cease from persecuting the Jews, he will have with him the sympathy and moral support of nations with whom his predecessors were never in touch.

The persecution of the Jews, of whom there are nearly 3,000,000 in Russia, was mainly in the enforcement of ancient laws which had long been evaded by bribing the police. Except a few privileged classes. Jews were forbidden to settle in Russia proper, and yet in St. Petersburg alone there were at least 50,000 Hebrews thus living as outlaws in close proximity to the tzar. The Jews, it has been said, are a people without a country; but the Russian Jews differ 1 from all others, not wandering the world over in search of gain, but bound with sacred ties to the land of their nativity or adoption. Thus banishment was a special hardship. and almost as bad was their compulsory residence on the western frontier, whence, it was hoped, this undesirable element would be absorbed by adjoining countries. Such measures were not only harsh but injurious; for if they made money, and perhaps took advantage of the needs of a thriftless and drunken peasantry, they also contributed much to the imperial treasury. while as merchants and bankers they were important factors in Russian commerce and finance.

Nicholas II is a wealthy man, one of the richest of European monarchs, richer even than Queen Victoria, though probably with a smaller store of ready cash; for he spends money freely, while the queen loves well to hoard her bank notes. His income has been stated at $12,500,000 a year; but in truth it is limited only by the resources of his country, for he may draw at will from the royal treasury

every ruble that it contains. First of all there are the crown domains, including more than 1,000,000 square miles of farm and forest lands. Then there is the entire product of the Siberian mines, producing fabulous amounts of gold, to say nothing of other metals, though their yield is never made known, for all are the private property of the tzar. The imperial crown alone, with its 50 large stones and 5,000 brilliants, is worth several million rubles; the scepter which holds the great Orloff diamond, and a sphere containing the finest sapphire in the world are also valued in millions; while the carved ivory throne of the tzar and the silver throne of the tzarina, thickly incrusted with diamonds are among the paraphernalia of royalty, the regalia and jewelry preserved in the winter palace.

Of huge dimensions, though veiled by symmetry of proportion, is the winter palace of the tzars, some 450 feet in length by 350 in width, fronting on the broad stream of the Neva and on the palace square, with its tall granite monolith of Alexander I. Completed as now it stands in 1839, after a fire which swept away property valued at $25,000,000, it is of composite architecture, and with light and elegant detail, suggestive rather of southern Europe than of the wintry clime of this subarctic metropolis. The entrance facing the square is approached by a handsome marble stairway, and in the richly stuccoed hall are some beautiful groups of statuary.

There are more than 700 chambers, though since the assassination of Alexander II the state apartments have been little used, except for banquets, balls, and other royal entertainments, which it need hardly be said are on a magnificent scale.

A state ball in the time of Alexander III may be thus described. The suite of state apartments is decorated with palm trees and tropical plants, while mounds of violets, brought by special train from southern Italy, fill the lordly chambers with delicate perfume. The tzarina is attired in a robe of soft, white silk, exquisitely embroidered with silver, and without contrast in the way of color, except the light-blue ribbon of the order of St. George. The ball is opened with a polonaise, the emperor dancing first with the empress, then with his sister, the duchess of Edinburgh, and afterward with the Austrian ambassadress. At midnight dancing ceases, and forming in procession the guests are conducted to St. George's hall, to the Romanoff portrait gallery and adjoining rooms, where at tables, each overshadowed by a beautiful tree in full bloom, they fare sumptuously in parties of eight. The imperial table, where sit the ambassadors and those of royal blood, is at the upper end of the hail, and in front of a colossal sideboard laden with gold plate, the emperor, as is his custom, not seating himself at all, but passing through the apartments and chatting with those whom he wishes to honor. Supper ended, dancing is resumed in the Nicholas hall, one of the largest in the palace, and with sixteen great windows overlooking the Neva. At three o'clock the court withdraws, and an hour later more than two thousand invited guests have dispersed to their homes.

In several of the halls are famous paintings of Russian battlefields, and especially beautiful is the White hall, its upholstery of crimson silk contrasting with columns of pure white marble and galleries adorned with marble tracery and sculptured gold. Here once a year the empress gives a private ball to her own circle, and here are served the afternoon teas in which women delight the tzarina and her intimate friends, occupying a recess cushioned in red satin, near which, on a flooring of mosaic, are small gilt tables and chairs, while marble cups are arranged in the form of a fountain issuing from the wall. But the Treasure chamber is the center of attraction, and this is entered through iron doors guarded by stalwart officers of the guard. In the center is a large glass case containing the insignia and

jewels already described, the crown being first used at the coronation of Catherine II in 1762. The front of this magnificent diadem is inlaid with scores of large pearls fashioned in the form of a mitre and representing the tzar as the head of the church, its golden band containing eleven large brilliants, while on the cross are five diamonds of purest water set in an uncut ruby. Elsewhere are lustrous pearls and precious stones without number, among them a 36 carat diamond, the gift of a Persian prince, and the diamond chain of the Andreas order worn by the empress on state occasions. Nor should we forget the gallery of Peter the Great, with its priceless collection of curios,—snuff boxes, carvings, and miniatures thickly bestrewn with brilliants, and aigrettes ablaze with big white stones, the heirlooms of princely families.

Forming a wing of the palace is the old Hermitage, erected by Catherine II for social gatherings apart from the formalities of state, and where courtiers and savans discoursed on politics and science between their games at cards. Ascending to the upper floor by a stairway of marble and granite, flanked with armor-clad equestrian statues, we come to a landing which looks convent of the passion forth on the Neva, and on the fortress of St. Peter and St. Paul, with its cathedral beneath whose glittering spire is the burial place of the tzars.

On this landing is probably the largest malachite vase in the world and of gorgeous workmanship. Thence one of the doors leads into a spacious suite of rooms prepared for the late tzarowitch Nicholas, son of Alexander II. Here is everything in the way of embellishment that wealth can purchase and taste suggest; walls, floors, and ceilings handsomely decorated, richly carved tables and bronzes on every mantelpiece, while in the center a handsomely frescoed hall is resplendent with golden hangings and columnar ornaments.

In a modern building adjoining the old Hermitage and of more imposing aspect, is the national gallery of Russia, in which are represented several European schools, and especially the Flemish masters. There is also a large collection of engravings, some 250,000 in number; but more valuable than all else are the Greek and Scythian antiquities. In the Art academy are the choicest works of Russian painters and sculptors; and there are many museums in St. Petersburg, medical, engineering, technical, marine, agricultural, and educational.

In addition to the Winter palace are many others in St. Petersburg, some belonging to the imperial family and some to wealthy nobles and land owners who spend much of their time in the capital. Among them is the Anitchoff palace, a favorite abode of royalty and the most home-like and comfortable of its many mansions. Overlooking the Nevsky Prospect, the busiest and most fashionable of all Russian thoroughfares, it is surrounded with a beautiful park and with a wall which affords sufficient protection from the vulgar gaze and from the bullet or bomb of the nihilist. Adjoining it are public gardens, where is a statue of Catherine II, erected by public subscriptions to which the emperor refused to add a single kopeck, for the tzars and tzarinas respect not the memory of the queen whom the people love to honor. In design the monument is far inferior to that of Peter the Great in the plaza adjacent to the Admiralty building. On a huge block of granite, more than 1,000 tons in weight and surmounted by a bronze equestrian statue, the founder of the city is represented as ascending a rock at full gallop, and with hand outstretched toward the Neva.

Neither in St. Petersburg nor elsewhere in Russia are there any of the magnificent monuments of ecclesiastical architecture which abound in Western Europe. St. Isaac's cathedral, whose gilded dome towers far above the metropolis, is the most imposing structure; but neither in the exterior with its

lofty red granite colonnades, built under the personal superintendence of Nicholas I, nor in the internal decorations, is there enough to show for the 23,000,000 rubles and the two-score years expended on its construction. Yet we have here the best that could be accomplished by Muscovite artists and architects, whose efforts are at best but clumsy imitations of French and Italian models. Of this we have a striking example in the cathedral of the virgin of Kazan, erected in imitation of St Peter's, and in whose semi-circular colonnade the body of the church is almost hidden from view. Nor are better effects produced in the catholic and other churches; for while there is a style of architecture that is essentially Russian, it does not find expression in temples of worship.

The university has about 90 professors and 2,500 students, in addition to which there is a medical faculty contained in a separate academy whose students are subject to military jurisdiction. Other seats of learning are plentiful and for secondary education, here as elsewhere, there is a liberal provision, nearly 40,000,000 rubles being distributed in 1894 among the sixteen educational districts which include all portions of the empire. Of many scientific institutions the academy of Science is the most important, especially for its service in the exploration of the Russias, for its library rich in oriental lore, and for its valuable collection of 150,000 classified specimens in natural history. In connection with it are the Pulkova and other observatories whose publications have contributed much to what may be termed astronomical literature. The Historical society, with its several branches, is one of the foremost in Europe; in the chambers of the Mineralogical society geology is well represented, and the Asiatic museum is well stored with ancient coins and manuscripts.

The Imperial library was founded in 1795 with the collection of the archbishop of Kieff, confiscated by the Polish republic, stored in the university at Warsaw, and thence transferred to the northern capital. Increased by many donations and purchases, it now contains about 1,250,000 volumes and 50,000 manuscripts, including at least 65,000 Rossica or Russian publications. While there are larger libraries in existence, it is doubtful whether any are richer in rare and valuable manuscripts. It is open to the public, as also is that of the council of state, while others are easily accessible. Of not less than 150 journals, few are political organs; for these are issued only through privilege, jealously guarded by the authorities.

Of other prominent buildings and institutions it is unnecessary here to speak, for sufficient has already been said to indicate their general character. Of all the great capitals of Europe St. Petersburg is the youngest, and yet with more than 1,100,000 inhabitants, dwelling for the most part on the delta formed by the Neva, a few miles from the gulf of Finland. Far surpassing even the dreams of its founder is the growth of the Russian metropolis, though on the outer verge of a wilderness extending over hundreds of miles of forest and morass. Except toward the southwest, where Germany is not far distant, there is not a single town of importance within 130 leagues, and the provinces can only be reached by canals and railroads traversing a barren and unpeopled waste. Yet the site was well chosen as a center for international traffic and especially for the shipment of Russian produce, for Russian traffic has ever tended northward, the rivers which flow into the Black Sea being shallow or obstructed by rapids, while it was not until the close of the eighteenth century that the shores of that sea formed a part of the empire. Thus it was in no mere freak that Peter founded on these marshy islets of the Neva the city which was to become a new Amsterdam, though hundreds of millions of rubles and hundreds of thousands of lives were expended in preparing the site of the modern capital, and in building the granite forts of Cronstadt, whence a ship canal, completed in 1885 at a cost of 10,265,000 rubles, terminates in a commodious harbor.

The general plan of the city is simple, three main thoroughfares paralleled by narrower streets and intersected with canals leading from a common center, while massive stone bridges connect the banks of the Neva, and between the islands are less substantial structures. Spacious quays are well lined with shipping during the summer months, and especially those on Vasilyevskiy island, where is the center of commercial activity. Most of the streets are badly paved, and though there are many handsome shops and residences architectural conditions leave much to be desired. As a rule the houses are large and built in the form of flats, many of them containing from 500 to 2,000 inmates, while palaces, churches, theaters, and other public buildings are also on a stupendous scale, as though intended for future generations rather than for present use. Public gardens and pleasure grounds are numerous; the business quarter is astir with the rush of traffic and in winter, when St. Petersburg is seen at its best, even Paris does not surpass in gayety this hyperborean metropolis.

Within a radius of fifty miles many popular resorts have been created in the surrounding wilderness. Royalty has also its palace of Gatchina, where was the favorite residence of Alexander III, the royal apartments being inaccessible except through narrow and strictly guarded corridors. It is a mammoth edifice or rather, series of edifices and is attractive, only for its environment of wooded slopes and park-like grounds, with groves of oak more ancient than the Romanoff dynasty. In one of the galleries is a collection of curiosities presented by the emperors of China and Japan, far superior, it is said, to any that exist in the east, among them works of art which it would be impossible to replace. Here also is the rich furniture presented by Louis XVI to Catherine II, though the sanctum of the tzar was plainly equipped and almost void of ornament except that above his writing-desk was a beautiful picture of his wife and children framed in antique enamel and surmounted by a diamond cross. The tzarina had also her sanctum, or boudoir, her den as she called it, but a somewhat costly den, for it was an exact imitation of one of the most beautiful chambers in the Alhambra, the bright-green foliage of palms contrasting with the brilliant coloring and diapered gold of the walls. Reclining on the silken cushions of a low divan with gold-embroidered pillows, her majesty passed many of the hours which her husband devoted to the affairs of state, sipping caravan tea which cost several dollars an ounce and smoking a prodigious quantity of cigarettes, very much to the detriment of imperial nerves and stomach.

Very fond of jewelry was the empress Marie Dagmar, even the apparatus which held up her skirts being covered with brilliants, while on her dress were ornaments in the form of butterflies fashioned of diamonds, sapphires, rubies, and emeralds, their antennae covered with diamond dust. A necklace of nine rows of pearls, unsurpassed in form and color, and held together by diamond clasps, was one of her husband's gifts, and above thickly clustered braids of dark brown hair were the outstretched wings of a pearl and diamond moth, concealed at times beneath a tiara of emerald shamrocks glistening with diamond dew-drops. In caskets were strings of pearls and precious stones dazzling to behold, among them some of the rarest of Byzantine jewels. Another tiara of diamonds and rubies was in the shape of a garland of poppies and ears of wheat; for the neck there was a band of diamonds and rubies, and set in a double garland of maidenhair ferns composed entirely of brilliants were twenty stars of pink diamonds and a collar of great rubies of brilliant color, shaped in the form of hedge roses. The furniture of the tzarina's private parlor was also on a magnificent scale, its walls and ceiling draped with a pale-colored delicate silk interwoven with threads of silver, its upholstery of pink and silver-embroidered velvet, its bay-windows festooned with Spanish Jessamine, and its chandelier of Venetian glass resembling clusters of convolvuli. Thus it will be seen that the empress Marie Dagmar

was well fitted to preside over a court at which it was a common saying, "Give us the luxuries of life and we will dispense with the necessaries."

Among other cities may first be mentioned the Baltic seaport of Riga, which is rather a Teutonic than a Slavic town, for half its population is German, and nearly all its commerce is in the hands of German merchants. Its origin is also German, traders from the Fatherland obtaining permission to settle in the neighborhood of the monastery which an Augustinian monk erected near the close of the twelfth century. From this small beginning it gradually increased in importance, especially after joining the Hanseatic league, and when captured by the Russians at the time when Peter was building his city on the marshy isles of the Neva, had long been recognized as a leading center of wealth and commercial activity.

Exports of timber, hemp, grain, and other products are little short of 100,000,000 rubles a year, freighting some 3,000 sea-going ships, while by rail nearly 1,000,000 tons of merchandise are forwarded from a tributary region extending almost from Warsaw to St. Petersburg. In the old quarter are still to be seen the lofty storehouses and spacious cellars characteristic of Hansa towns; narrow and crooked but busy streets contrast with the spacious boulevards of the suburbs, and especially those of the fashionable suburb of St. Petersburg, where dwell the aristocracy of wealth. Among the finest of modern buildings are the exchange, the new theater, the polytechnic, and the picture gallery owned by the municipality, while of mediaeval monuments the most remarkable is the Domkirche with its organ containing nearly 7,000 pipes, one of the largest in the world. St Peter's church, a fifteenth century structure, has a tower 440 feet in height, and to the following century, though often rebuilt, belongs the castle of the "knights of the sword," now used as official headquarters.

Warsaw, with about half a million of inhabitants, is the third in size among the cities of the empire, one of the first in commerce and manufactures, and but for its many misfortunes would doubtless have attained to a higher rank as a center of wealth and culture. Selected as the Polish capital about the middle of the sixteenth century, it was a score of times captured and plundered before Russia finally became its master in 1813. Then came insurrections, followed by wholesale executions, deportations, and forfeiture of estates, the very name of Poland being erased from official documents after the uprising of 1863. It is a beautiful city, built on an eminence amid the fertile plain watered by the Vistula, here at some points half a mile in width, and connected by substantial bridges with its suburb of Praga on the opposite shore. There are at least 170 palaces and more than that number of churches and cathedrals, with public buildings erected at enormous cost, while in the center of business activity the governor-general has his headquarters in the ancient castle that Conrad, duke of Mazovia, founded in the ninth century, though many times enlarged.

The university formerly ranked among the foremost in Europe, and has still a large attendance, though but a shadow of its former self; for instruction is mainly in Russian, and the educated classes will have none of it, preferring other institutions where the Polish language is spoken. Connected with it is a library of 400,000 volumes, though more than once ransacked to enrich the shelves of the Imperial library of St. Petersburg. There are also academies of science and art, a conservatory of music, and several theaters, one of which is in the form of an artificial ruin, its stage and auditorium, both in the open air separated by a stream of water, and its decorations having as a background the palace and park of the Zazienki gardens.

The Saxon garden, near which is the aristocratic quarter of Warsaw, has also its summer theater in the midst of grounds adorned with fountains, flower-beds, and statuary. In the suburbs are other palaces, some of them on the sites of historic battlefields, as the one erected by Sobieski, where is a choice collection of pictures representing Polish heroes and heroic deeds.

As the principal port on the Black Sea and the natural entrepot for the produce of the broad and fertile plains watered by the Dnieper and Dniester. Odessa is one of the most prosperous cities of the empire, the only one that resembles the great commercial centers of western Europe. Though near its theater site was founded the Greek colony of Odesseus at least as early as the days of Pericles, it is a comparatively modern town; for early in the Christian era all traces of Hellenic settlement had disappeared, and for more than a thousand years the shores of its spacious harbor were uninhabited. Near the close of the eighteenth century a small village named Haji-bey—the Greek name being later adoption—formed the nucleus of the present town, with its 400,000 inhabitants and with a commerce extending to every quarter of the world, shipments of grain livestock and animal and other products being on an enormous scale. Southern Russia is one of the granaries of Europe, and Odessa is its warehouse, palatial buildings of enormous size, erected for the storage of grain, lining the edge of a bay protected by a mole 1,100 yards long and 650 in width. The main embankment, which also serves as a promenade, is bordered with handsome residences, and commodious thoroughfares and plazas are flanked with stately mansions and business edifices, among which are interspersed the dwellings of the poor. The cathedral is in better taste than most of the church buildings of St. Petersburg; colleges and schools are numerous; there are several scientific associations, and the Historical society has a collection rich in Hellenic, Venetian, and Tartar annals of the Black Sea coast.

On the western bank of the Dnieper and on the highroad between Odessa and Moscow is the ancient city of Kieff, which has been termed the Canterbury of Russia, for its cathedral of St. Sophia, founded by Prince Yaroslaff in 1037, is the oldest in the empire. It is not a remarkable structure and its dimensions are far from imposing, the interior decorations, which is a colossal statue of the virgin, showing strong traces of Byzantine among influence. A famous monastery is that of Kievo-Petcherskaya, visited annually by 400,000 pilgrims, much to their own discomfort, for many thousands are compelled to sleep in the open air. Though with a considerable volume of trade, Kieff is an intellectual rather than a commercial center, with a university transferred from Vilna after the Polish insurrection of 1831, and with many scientific and learned societies.

Moscow, the ancient capital of the tzars, was for centuries the most splendid of Russian cities, and is today a rival of the great metropolis on the Neva, for ceasing to regard the glories of the past, men have turned their attention to the chances of the present, establishing there the great industrial center of the empire. Of Moscow as it was in the days of Ivan the Terrible I have already spoken; and after his death it was visited with many disasters, though always followed by seasons of prosperity. In 1547, and in 1571, it was destroyed by fire; and in the second conflagration, the work of the khan of the Crimea, many thousands perished in the flames, while of its 200,000 inhabitants only 30,000 escaped the massacre which followed. At the opening of the seventeenth century it was again a great city, the emporium of commerce for a region extending for hundreds of miles in all directions; so that foreigners who came there to trade returned with wondrous tales of its wealth and magnificence.

After further changes of fortune it is thus described by Thiers as it appeared in 1812, when Napoleon's grand army came in sight of the capital. "At last, having reached the summit of a hill, the army

suddenly discovered below them an immense city shining with a thousand colors, surmounted by a host of gilded domes resplendent with light; a singular mixture of woods, lakes, cottages, palaces, churches, and bell-towers; a town both Gothic and Byzantine, realizing all that eastern stories relate of the marvels of Asia.

While monasteries flanked with towers formed a girdle around this great city, in the center, raised on an eminence, was a strong citadel, a kind of capitol, where were seen at the same time the temples of the deity and the palaces of emperors, where above embattled walls rose majestic domes, bearing the emblem that represents the whole history of Russia and her ambition, the cross over the reversed crescent. This was the Kremlin."

"Yonder is the celebrated city of the tzars," exclaimed the great conqueror as he gazed on the Muscovite capital, where he hoped to dictate terms to the monarch of all the Russias. But Napoleon was mistaken. Entering Moscow he found it deserted, except for solitary figures flitting here and there among bazaars and warehouses stored with the treasures of the orient, and stately palaces rising from the midst of spacious and beautiful gardens. The inhabitants had fled, and in such haste that jewelry and gems were left on the dressing- tables of the rich, and in their wardrobes were the finest of silks and furs. But what meant these strange apparitions haunting the city of the dead where silence reigned supreme, and none were left to explain the reason of its desertion? He was soon to know what they meant. On the following day a fire destroyed the group of buildings known as the bazaar, filled with the costly fabrics of Persia and India, with the choicest wines and with the luxuries of Western Europe. What the flames did not consume fell to the lot of the soldiers, each of whom helped himself to all the spoils he could carry. At nightfall a gale set in and carried the conflagration into the wealthiest portions of the city, tongues of flame leaping from house to house as if mocking all efforts to stay them. Men let loose from jail, crazed with strong drink and with blazing torches in hand, were caught in the act of spreading the flames in quarters where the wind had not borne them. Arrested and threatened with death, at length they revealed the secret; orders had been given that Moscow must be burned to the ground, as were the towns and villages, the stores of provisions, and all else that could be destroyed on Napoleon's line of march! If the Russian armies could not withstand him, then cold and hunger should do the work which the sword had failed to accomplish.

Incendiaries caught red-handed were shot at sight or hanged on gibbets; but even this had no effect; for all had been promised a free passport to heaven should their lives be forfeited in the cause of holy Russia. The pumps had been removed, and even if water could be had it would be of no avail against this solid mass of flame beaten down by the gale on the roofs of doomed buildings, while deafening explosions heard above the roar of the conflagration hurled blazing beams far into the midst of distant streets, spreading the scourge where before it was not. Presently a change in the wind carried the fire toward the Kremlin, where exposed to the conflagration were the French ammunition trains and in the arsenal 100,000 pounds of gunpowder. Then even Napoleon turned pale, as from the belfry of the tall tower of Ivan the Great he gazed on this awesome spectacle. "These people are genuine Scythians," he exclaimed, while mounting his horse he made his way with difficulty which through the blazing streets amid showers of sparks and burning cinders. Yet returning to the Kremlin, which alone was spared by the conflagration, here, in the vain hope of bringing the tzar to terms, he lingered for weeks before giving the order to retreat. They were fatal weeks that he passed among these smoldering ruins; for now winter was at hand and 400 leagues of snow-covered steppes lay between him and his capital.

Still at the Kremlin stands its old thirteenth century fort, but with modern walls nearly a mile and a half in length enclosing a plateau of nearly 100 acres overlooking the stream of the Moskva. Let us linger for a moment amid this enclosure with its towering spires, its stately domes and towers, its palaces, its Patriarchs' treasury stored with jeweled vestments and vessels of gold and silver, and its ancient churches with their quaint archaic images. More than six centuries of historic associations are connected with the Kremlin where khans and tzars held court surrounded by throngs of nobles, its annals forming in part the annals of the empire, its glories and its disasters, for there and in the neighborhood was the cradle of Russian nationality. Most venerable of all the church buildings is the Uspensky cathedral, originally a fourteenth century structure, but rebuilt in the fifteenth, and from Lombardo-Byzantine designs with more modern restorations. Of priceless value is the sacred picture attributed to St. Luke, its jeweled cover alone costing 200,000 rubles. Here also are the relics of saints and martyrs, and the throne of Vladimir I, long antedating the dynasty of the Romanoffs. Another fourteenth century cathedral is that of Arkhangelsk, reconstructed in 1505, and much impaired in effect by later alterations.

Here was the former burial place of the tzars, who contributed freely to its treasures, making it probably the wealthiest of Russian church establishments. The Blagoveshchensk cathedral, completed in 1489, was formerly the private chapel of the emperors, and in the Voznesenski convent, erected in 1393, are the tombs of their wives and sisters.

Near the Chudoff monastery, a mediaeval structure afterward converted into a state prison, is the lofty campanile of Ivan the Great, the cross of whose gilded cupola, rising 330 feet above the pavement, is one of the landmarks of the country round. Of its many great bells one is 144,000 pounds in weight; but this is as nothing compared with the tzar-kolokol, or tzar of bells, which, though 160 years old, still stands where first it stood near the base of the tower, rendered unserviceable by a fracture which occurred during the conflagration of 1737. As the greatest bell in the world it well deserves its title; for it is 21 feet high, with a rim more than 60 feet in circumference and a weight of 431,000 pounds. In the Imperial palace, though a modern edifice, are still preserved the chambers constructed in 1636 for members of the royal family. In the treasury of the tzars, now used as public museums, is a dazzling array of regal paraphernalia, crowns and thrones, furniture and plate of gold and silver, of ivory and precious woods, with dresses of richest stuffs and weapons and carriages galore, both of Russian and Tartar patterns. Finally in the Kremlin library are several hundred Greek and more than a thousand of the rarest of Russian manuscripts.

From one of the several hills adjacent to the Kremlin rise the towering white walls, gilded dome and cupolas of the church of the Savior, mainly Byzantine in structural features, but with a certain stiffness of proportion due to modifications ordered by Nicholas I. The St. Basil cathedral, fronting on one of the finest squares in Moscow, is a gorgeous specimen of oriental architecture, and with a profusion of the bulb-shaped cupolas in which Russian artificers delight. To a similar order belongs the church of the Nativity, its minarets surmounted with crosses elaborately wrought, while the church of the Annunciation is in the plainest style of Muscovite compositions. The Iversky chapel, though profusely decorated, is massive and somewhat gloomy of aspect, as also is the convent of the Passion, with its lofty campanile, fronting on one of the open spaces where peasants meet for traffic.

Among secular buildings the theater is one of the most sightly, with a colonnade of graceful Ionic pillars surmounted by a quadriga, and with elaborate decoration of the somewhat narrow entablature

of its main facade. Though first introduced at Kieff, Moscow is the home of the Russian drama, and it was for its stage that Russian playwrights produced their choicest works. There are historic and other museums, that of Prince Golitzyn, containing a valuable collection of paintings and manuscripts, with many archaeological treasures, while in the public museum are some rare old pictures and sculptures, with a library of 200,000 volumes. Scientific associations are plentiful, as also are philanthropic and charitable institutions. The university, founded in 1755, is one of the most popular of all Muscovite seats of learning, for there are few restrictions, and many scholarships for the benefit of the poorer students. It has an excellent library and large collections in zoology, geology, and mineralogy. Other educational establishments place Moscow at least on a par with the northern metropolis.

The Kitay-Gorod is the principal business quarter of Moscow, a group of buildings known as the Gostinoy Dvor, or caravanserai, containing hundreds of stores where is sold about everything that can be purchased for money. Between it and the Kremlin is the Red square, more than half a mile in length, and so called perhaps because that there was the place of execution, the Soubraska and other spacious plazas contrasting with narrow and badly paved streets.

At the exchange, where nearly 2,000 brokers congregate, there is a large aggregate of transactions. There are many banks and substantial mercantile firms, while a feature in the ret ell trade is the rows of old bookshops, seemingly with no lack of patronage. For several centuries Moscow has been a leading emporium of traffic, supplying more than half of Russia and all Siberia with many classes of goods. As a storehouse and mart for European and Asiatic merchandise, its customs revenue is larger than that of St. Petersburg while of domestic produce, and especially of grain, shipments are on a large scale. Several lines of railroad carry from the city more than 10,000,000 tons of freight a year, and 1,000,000,000 rubles is probably a low estimate of the annual value of its commerce.

While except for their pavements, some of the streets have been Europeanized, there is little attempt at street architecture, most of the buildings and thoroughfares having a strong individuality without regard to their neighbors, and modified only to suit the needs of a rapidly increasing population. Side by side with palatial residences are wretched hovels, such as are found only in the slums of western cities, just as the muzhik, or peasant, clad in greasy sheepskin and without a kopeck in his pocket, mingles with the wealthy and well dressed, or gazes on passing carriages whose occupants are arrayed in velvet and furs. Certain quarters are the abode of special communities, as the Konnushenaya, with its wooden tenements and spacious yards, where dwell the poor but proud nobility; and the Zamoskvoryechie, where merchant princes live in splendor, their mansions surrounded with gardens and grounds resembling country estates. The suburbs are remarkably beautiful, with stately edifices set in the midst of parks and woodlands, that of Ostankino containing an imperial palace and the most handsome church building in the outskirts of the metropolis.

Nijni-Novgorod, a colony of Novgorod the Great, is famous for the annual fairs held there since 1817; though such gatherings date from remote iniquity, the site of the fair changing with the ebb and flow of population. During their term, between the 5th of August and the 15th of September, Nijni is a busy and crowded city, at least 250,000 being added to its normal population of 70,000 or 80,000, and exchanging goods to the value of 500,000,000 rubles. At these fairs is largely determined the price of staple commodities, and in other respects they have a powerful and wide-reaching influence on the commerce and manufactures of the empire. On a hill sloping toward the Volga is the Kremlin, a sixteenth century fortress, with a wall considerably more than a mile in length, and enclosing the

governor's residence, the law courts, and other public buildings. Here also are two thirteenth century cathedrals, though more than once rebuilt, and transformed by modern alterations into architectural deformities.

At no great distance lies the western frontier of Siberia, a country about which much has been written but little is generally known, notwithstanding the numerous reports of travelers and explorers extending back to the beginning of the eighteenth century. That it is merely an ice-bound wilderness is a popular misconception; for there are prairies as rich as those of the western United States, plains including vast tracts of fertile lands, highlands with valleys and lakes resembling those of Switzerland, and plateaus affording pasture for millions of cattle. Yet the frozen tundras of the north are of immense extent, and unfitted for human habitation Siberia is in fact a world in itself, and with an infinite variety of physical features; for it covers 120 degrees of longitude and 26 of latitude, with an area of 5,000,000 square miles, or nearly twice the size of the United States, excluding the desert of Alaska. In climate, in scenery, and surface fauna and flora, in races and race characteristics the contrast is stronger than in any country of the earth. There are provinces where the mean temperature in January is 40 degrees to 50 degrees below zero, and there are others where the mean winter temperature is far above that of the New England states. There is a timber belt 3,000 miles in length and 1,000 in average width and the soil varies from the black-earth zone of south-western Siberia which is but a continuation of the Russian steppes, to the morasses that skirt the shore's of the Okhotsk and Bering seas.

The principal grain producing regions of Siberia cover a surface of 225,000,000 acres, of which less than one-twentieth is under crop, though yielding abundantly, supporting 2,500,000 people, and with room for ten times that number. This for southern and western Siberia, while in the central province of Yeniseisk, lying for the most part beyond the Goth parallel, there are 3,500,000 acres in cultivation, the yield of cereals permitting a considerable export. About 3,000,000 horned cattle, at least as many horses, and 5,000,000 sheep are depastured on Siberian hills and plains, finding their winter food beneath a thin covering of snow, for little hay is made. The forests yield an abundant supply of furs, and for game there are antelope, deer, and bear, with wild fowl in innumerable flocks. The production of gold is at the rate of $15,000,000 a year, or larger than that of California; and of silver, copper, lead, and coal there is a moderate output. But both mining and manufactures are still in a backward condition, modern appliances being far from common while with material, at hand for many prosperous industries, the people import nearly all that they consume, apart from farm and animal products. The great Moscow road forms the main line of communication; but there are many waterways navigable in summer and a railroad connecting with the Russian system is being steadily pushed forward to the Pacific seaport of Vladivostok. Inducements are freely offered to the poorer class of emancipated serfs to settle on the public lands; but they would rather starve on a small patch of ground in holy Russia than eat of the fat of the land in Siberia. Nevertheless this is one of the best, outlets for the surplus population of the world.

Irkutsk is the center of Siberian population, commerce, and wealth, and though nearly 4,000 miles from St. Petersburg, its buildings and streets are superior to those of an average Russian town. A conflagration in 1879 destroyed property valued at 30,000,000 rubles, including the government archives and the library and museum of a branch of the Geographical society whose headquarters are at the capital. There are many churches, a theater, hospitals, and other appurtenances of western civilization. Yakutsk, 1,800 miles further in the wilds of Siberia, and toward the northeast, is a place of

little importance, with unpaved streets and wooden buildings, though a few well-to-do merchants carry on a profitable trade in furs.

Turning southward to Tiflis, the capital of Russian Caucasia, we have before us a journey extending over more than one-fourth of the earth's circumference, though neither town is near the extremity of the Russian empire, one lying within a hundred leagues of the Arctic Circle and the other in the latitude of southern Italy. Tiflis has a population of about 150,000 and is of commercial importance as the entrepot of trade with Persia, while its artisans are noted as silversmiths, gunsmiths, and sword-makers. Among its buildings are a grand ducal palace, a cathedral, an opera-house, a museum, clubs, hotels, and other evidences of western civilization. Khiva is virtually a Russian possession, though nominally under the rule of its khan. Bokhara, the capital of a khanate whose territory has been largely reduced by the encroachments of Russia and Afghanistan, was formerly a wealthy capital, known as Bokhara the Noble; though of its ancient splendor there is nothing to remind one in its narrow dirty streets and flat-roofed house s of sun-dried bricks. The mosque of KeIan, built by Timur the Lame, or Tamerlane as his name has been vulgarized, is the largest building, and of other mosques there are at least a hundred, with as many colleges, some of them dating from the middle ages, the finest being that which Abdullah founded in 1372.

In connection with the Russian empire may be mentioned die kingdom of Romania, originally a Roman possession as its name implies, and with a long and eventful history before being recognized by the treaty of Berlin as an independent principality.

It has about 50,000 square miles of area, and nearly 6,000,000 inhabitants supported almost entirely by agriculture; for the rich black soil yields abundantly under modern methods of cultivation, so that Romania ranks next to Russia among grain-exporting countries. Minerals are plentiful, but little utilized, except the salt mines, a government monopoly, and worked in part by convict labor. Bucharest, the capital, founded in the thirteenth century by Prince Radel of Wallachia, played an important part in European annals before King Carol I placed on his head in March, 1881, a crown made from cannon captured at Plevna redoubts. There are more than 200,000 people in this city of churches, cupolas, and minarets, numerous plazas bordered with tall poplars and acacias adding to its picturesque appearance when seen from a distance; but the streets are irregular, and in some quarters there are none at all. The theater is the largest and the academy the finest of the public buildings, the latter containing the chambers of the senate, the university, and a museum of antiquities and specimens in natural history. There is a considerable trade, and at the head of financial institutions are the bank of Romania with a capital of $5,000,000 and the Societe Financiere de Roumanie.

As tradition relates, Servia was colonized about the middle of the seventh century by five Croatian princes, their followers, and their sisters Tuga and Buga, that is to say, Adversity and Prosperity. Later the country became a portion of the Hungarian kingdom, and in the fifteenth century was overrun by the Turks, who destroyed all its churches and monasteries and carried away captive 200,000 people. As a Turkish province it was subject to centuries of oppression; so that in 1830, when Milosh was declared prince with the consent of the Porte, its aristocracy had been almost exterminated, and few were left except the peasants, who tilled the ground, and fed the swine which helped to pay their taxes. Thenceforth the condition of the country gradually improved, and especially after its independence was established by the treaty of Berlin, Alexander I ruling over 2,500,000 contented and prosperous subjects. Agriculture is conducted in patriarchal fashion, many of the villages

consisting only of a single homestead occupied by a group of families related by blood and subject to a starcshina, or patriarch, who distributes the labor and its proceeds without complaint. All work together on lands which they own in common, eat and drink together in a common hall, and spend their evenings in harmless pastimes with their children. Gold is gathered in the valley of the Timok; and there are gold and silver mines said to have been worked by the Romans, while lead and iron are plentiful, and of coal there are many deposits, one of them twenty miles in length and eight in breadth. Belgrade, the capital, is increasing rapidly, and assuming a modern aspect, mosques and minarets falling into decay and giving place to more useful structures. There are the royal a cathedral and episopal palaces, several churches, a theater devoted to the national drama, and many educational institutions. If not wealthy, the people of Servia are well-to-do, and in common with other countries formerly subject to Turkish misrule, desire nothing better than to be left alone.

Miscellany

At the close of 1895 a grand bazaar was opened in the Winter palace at St. Petersburg under the patronage of the empress Alexandra whose stall was filled with the choicest products of the imperial porcelain works. Contributions were forwarded from every quarter of the empire, and from many foreign lands, three continents and at least a score of nations being represented in these collections.

In the first room was the stall of the queen of Romania, with those of Greece and Japan, the former containing rich stuffs and the latter vases and lacquers. In the Turkish and Egyptian stall were magnificent canopies and embroideries, attar of roses, and strange looking boxes of sweet-meats. Italy had some of her choicest mosaics and glassware, and Austria some beautiful specimens of cut glass. England sent a number of useful articles and the United States a quantity of silverware, among which was an enormous silver punch-bowl. France furnished an entire picture-gallery, and in what was known as the Raphael gallery hot-house flowers were sold by duchesses at prices which added largely to the receipts of this Russian charity fair.

The trousseau of the empress of Russia cost $250,000, apart from an enormous quantity of precious stones, furs, laces, and cloth of silver and gold. Articles furnished by the Russian court were sent under seal, and during the preparations a court official was always on hand to see that there was no stealing or substitution of inferior goods.

A Russian dinner service is thus described by one who was on terms of intimacy with many of the noblesse. "The table was a great square of oak, as black as ink and as polished as marble, but without covering except for strips of splendid old altar lace laid under the plates. In the middle were two rows of candlesticks of the beautiful Venetian glass, which Iras the milky green of shallow sea-water thickly powdered with gold-dust, and with shades of delicate gold filigree set over pale violet silk. There were thirty or forty tiny gold vases filled with small clusters of white and purple violets, and at each plate stood a small forest of wine-glasses, all gems of Venetian art, and forming a mass of translucent color in amethyst green and gold. The knives, forks, and spoons were themselves works of art, with handles of gold and carved ivory, of porcelain, or of beautiful Russian enamel and cisele work."

In the Winter palace there is a service of silver plate overlaid with gold that will furnish covers for 500 guests. It was made for the emperor Paul near the close of the eighteenth century, and is still occasionally brought out on state occasions. The table of the tzar is usually furnished with chinaware of ordinary pattern, though better than was used by Nicholas I, whose board was set with coarse, heavy plates, and cups of enormous size and of the commonest make.

At Copenhagen was recently built for the tzar a new steam yacht 370 feet in length, with a displacement of 5,200 tons and compound engines of 5,300 horsepower. In the grand saloon is accommodation for 60 guests, and the interior furnishings are on a magnificent scale, for Nicholas must have his costly playthings, though to his subjects it is a life-long struggle to pay their taxes. Alexander III and his family spent much of their time on board the yacht Czarewna, making trips along the coast in quiet unpretentious style, for the Czarewna was a much smaller and less expensive vessel, the emperor's cabin having only room enough for a writing table, a emperor sofa, and a chair.

The last illness of Alexander III cost 10,000,000 rubles, of which 600,000 rubles went to the doctors.

Hebrew traders thrive in Russia as elsewhere in the world, even making money by smuggling their people out of Russia at so much per head. In some provinces the peasantry are at the mercy of the Jews, who hold mortgages on their lands and growing crops, acting as their brokers and charging such rates of interest and commission as to keep their victims always in debt. In Romania they are dreaded worse than an army of Russian troops; and elsewhere it has been said that they bring nothing into the country and take out of it every ruble that comes in their way. The Russian Quakers of the Caucasus were also subject to persecution, being driven without means of subsistence from comfortable homes acquired by many years of toil.

Early in the tenth century Oleg, whom Rurik, grand prince of Novgorod, appointed guardian of his son Igor, conducted an expedition against Byzantium, dragging his ships across the land on reaching the Bosphorus, whose channel the Greeks had blockaded. After committing many atrocities, as described by the Russian historian Karamzin, he withdrew on receiving a large ransom from the emperor Leo the Philosopher. In 941 Igor laid siege to the Byzantine capital, but was overpowered through the use of Greek fire, and few of his followers escaped. The next year he undertook another expedition, compelling the city to purchase its deliverance at enormous cost, and even with this he was not content until persuaded by his advisers. “What more can we want," they said, “than to have gold and silver without fighting?" While at this period the Norsemen were overrunning northern and Western Europe, they had never before penetrated so far south as Constantinople.

Ivan the Terrible devoted much of his leisure to collecting Greek and Latin manuscripts, of which it was believed he stored away several hundred in the cellars of his palace at the Kremlin, many of them as yet unknown to the world, and such as may change accepted traditions as to the classic writers. Here are also supposed to be many valuable documents belonging to the khans and to ancient Russian princes, with family heirlooms in the form of jewelry and plate. A search made by order of Alexander III proved unsuccessful, but it is probable that these treasures will yet be brought to light.

Kostomoroff draws a gloomy picture of the condition of affairs during the Muscovite despotism, when from the highest to the lowest everyone stole what he could to indemnify himself for the burdens laid upon him. "To cheat the government," he says, "to take its money, sell the justice which they dispensed in its name, and pillage the provinces they were charged to administer, became among the public functionaries of ancient Muscovy an accepted and hereditary custom." The government made no attempt to repress such practices unless peculation was carried to an extreme. "To receive food" was the term used for securing an office, the request being made about as follows: “I. thy faithful slave, am reduced to beggary, and my servants perish under the stick of the tax-gatherer. Give me then this place that I may feed myself a little."

Though in Russia 85 percent of the population can neither read nor write, there are published about 8,000 new books a year, or nearly twice as many as in the United States, the first work issued being the Apostol, printed in 1564 by Ivan Feodoroff, in honor of whom a monument was recently erected at Moscow. In the Book of Household Management, probably by the monk Sylvester, at one time the trusted adviser of Ivan the Terrible, is a curious picture of ancient Russian customs and barbarisms and especially in relation to women who were then treated almost as slaves. Pososhkoff's Poverty and Riches, a treatise on political economy, was the most valuable contribution in the age of Peter the Great. The second half of the eighteenth century, and especially the reign of Catherine II, abounds in literary productions borrowed from the French, but among them were few of merit. Nicholas

Karamzin, historian, poet, and novelist, was the foremost author of the time of Alexander I, his fame resting chiefly on his History of the Russian Empire. Ivan Kriloff was a pleasing writer of story and verse, his sketches containing vigorous descriptions of national life. Poushkin and Lermentoff were famous poets in their day, the latter being of Scotch extraction and finding his inspiration in the wild mountain scenery of the Caucasus. Kostomorof was among the foremost of modern historic writers; Nicholas Gogol ranked first among novelists, at least until Turgenieff made his appearance, though Tolstoy is perhaps more widely read than any Russian author. In this connection may be mentioned the Chronicle of Nestor, a Kievan monk who has been termed the father of history, his eleventh century manuscript forming a most valuable compilation of early Russian annals, and the first link in a chain of historic records extending to the days of Mikhailovich, father of Peter the Great.

The travels of Marco Polo late in the thirteenth century extended, as it seems, even to Siberia, of which country at least he pretends to know somewhat. “They subsist." he says, "on milk and the flesh of their cattle, and have no corn.” When it comes to the Land of Darkness, the impenetrable beyond, it is refreshing to hear him discourse. "The Tartars sometimes visit the country, and they do it in this way. They enter the region riding mares that have foals they leave behind. After taking all the plunder they can get, they find their way back by the help of the mares. These people have vast quantities of valuable peltry, costly sables, ermine, the black fox, of which they amass amazing quantities."

Of the total population of the empire 80 percent or nearly 100,000,000 people belong to the peasant class, probably one-third of that number being emancipated serfs or their offspring. As in the southern states of our own country the immediate effect of the emancipation was disastrous both from an economic and social point of view, bringing ruin on landlords and filling the towns with vagrants. Most of the serfs, however, retained their homesteads and received a small allotment of arable land for which they paid rent, often in the form of personal labor, the crown later relieving them from all obligations to proprietors who nevertheless contrived to steal most of their little holdings. The average was less than ten acres, whereas 30 or 40 acres were needed for the support of a family, and thus lands must be rented at extravagant prices, with the final result that a large percentage of the people were compelled to leave their homes and wander through the country in search of employment. As late as 1890 the peasants in many provinces had not rye-bread sufficient for more than half the year, and in the seasons of famine that followed the condition of affairs was simply appalling, thousands perishing daily from actual starvation, or from diseases incurred by eating unwholesome food.

No boat must appear on the Neva upon the breaking up of winter until the stream be officially declared open; when the ice has pretty well disappeared, a cup of water from the river, is presented by the governor of the citadel to the emperor who drinks it and returns the cup filled with ducats; then a gun is fired and instantly the river is covered with boats.

Section Six

Chapter the Sixteenth: Great Britain and Ireland

Earth has not anything to show more fair;
Dull would he be of soul who could pass by
A sight so touching in its majesty;
This city now doth like a garment wear

The beauty of the morning; silent, bare,
Ships, towers, domes, theaters, and temples lie
Open unto the fields, and to the sky.
All bright and glittering in the smokeless air.

Never did sun more beautifully steep
In his first splendor valley rock, or hill;
Ne'er saw I, never felt a calm so deep!
The river glideth at his own sweet will;
Dear God! the very houses seem asleep;
And all that mighty heart is lying still!

—Wordsworth's Lines on Westminster Bridge

"British gold," said Napoleon I, "has often been a more potent factor in deciding the destiny of nations than the largest armies led by the ablest generals." Yet, except a few hundred ounces taken from low grade deposits in Wales, costing more than its value to extract, none of this metal has ever been mined in the British isles; while of silver, found in combination with lead, the average yield is less than 300,000 ounces a year. It is to her manufactures, as need hardly be said, and to the commerce mainly developed therefrom, that Great Britain owes her wealth, and apart from manufactures the nation would be one of the poorest on earth. That it is one of the richest is due, as the Briton would have us believe, to the superior intelligence, enterprise, and skill of British capitalists and British workmen. Is it not rather due to the fact that coal can be raised to the mouth of the pit for six shillings a ton? Yet the Englishman's self-conceit is not altogether inexcusable; for coal can be brought to the surface even at cheaper rates in the United States, in Germany, and in Belgium, though not in such close proximity to iron-beds, to navigable water, and to manufacturing centers.

In physical structure England has been described as "an epitome of the world's geology," nearly all existing formations, from the Silurian to the most recent of tertiary strata being found in this little sea-girt country, less than 60,000 square miles in area. Much of the shore line is gradually changing, the sea gaining on the land or the land encroaching on the sea, in some places as much as 30 feet in a year. In the county of Kent there is a tract of marsh land, some 25,000 acres in extent, which was once an arm of the sea, where vessels passed through deep water to ports no longer in existence. On the other hand there are many points, as on the Yorkshire coast, where the cliffs are slowly crumbling away, buildings disappearing from time to time with the solid earth that supports them.

The mountain system of England and Wales consists of one principal chain, but with innumerable ramifications, extending from the border of Scotland to the western extremity of Cornwall, whose towering cliffs present a bold front to the Atlantic. The highest of the system is Mount Snowdon in Wales, its summit easily accessible, though mist-wreathed almost throughout the year. Then there are Helvellyn, Scawfell, and "bold Skiddaw," standing guard over the lake region and all more than 3,000 feet in height, while in the Cheviot Hills there are peaks from 2,000 to 2,100 feet above the sea level. Most of the larger rivers flow eastward, the Thames with its estuary draining an area of 10,000 square miles, the Trent and Ouse, whose streams unite in the Humber, carrying off the surface waters of an equal area, and the Severn, Mersey, and Avon ranking high among fifty or more navigable streams, to say nothing of smaller rivers and rivulets.

The rainfall is ample but not excessive, except in a few localities, varying as a rule from 35 to 18 inches, though at certain points, as in the village of Beddgelert, near the foot of Snowdon, 50 or 60 inches are an average precipitation. The climate is moist and mild, with a mean annual temperature of about 50 degrees—in summer 60 degrees, in winter 40 degrees—the gulf-stream, (by which alone is made habitable northeastern Europe), here first making itself felt on its eastward course from the land-locked cauldron of the gulf of Mexico.

The soil is moderately fertile, though adapted rather to pasturage than agriculture, except in the midland and southern counties, where with the use of fertilizing substances 40 bushels of wheat to the acre and 60 of oats or barley are no uncommon yield. In the useful minerals the country is rich, the annual output of coal averaging more than 175,000,000 tons; so that nearly all other industries are subsidiary to this potent factor in the production of wealth. Manufactures and commerce are, as I have said, on a stupendous scale, and in other respects Great Britain is a favored realm as compared

with continental Europe. For the rich it is a pleasant land to dwell in, and for the poor it is one of the best, apart from the British colonies and the United States. Here can be had for money whatever money will purchase, and many things besides; pleasant environment, cultured if somewhat exclusive associates, and the most attractive of landscape scenery. There is nothing grand in English as there is in Scottish scenery; but there is much that is beautiful, verdure-clad hills alternating with fair and fertile valleys, woodlands with lush meadows, and heath-clad mountains and moors, bordering on the marge of loch or lake, forming one of the strongest elements of the picturesque.

In the Britain of early days, when Tynan mariners visited her coasts to barter trinkets for tin and lead, there was nothing to indicate her future greatness, nothing even to make the land in anywise desirable as the abode of civilized man. As related by the Massilian traveler Pytheas, who wrote in the fourth century BC, but of whose works quotations only remain, the island consisted almost entirely of forest and marsh, with a few openings in the woods in which cattle and sheep were pastured, and here and there a narrow strip near the shore, whose scant uncertain crop of grain was threshed in sheds and not on open floors; for there was little sunshine and almost perpetual rain. Caesar and Tacitus identify the inhabitants with the Iberians and Gauls, the interior being occupied by races which claimed to be indigenous and the sea-coast by those who had come in search of booty or adventure. "The population," writes Caesar, "is numerous beyond all counting, and very numerous also the houses, resembling closely the dwellings of the Gauls. They have great numbers of cattle, and for money use copper, or copper coin, or bars of iron fashioned to a certain weight.”

When Britain was finally reduced to a Roman province, guarded and garrisoned by Roman legions, industrial and commercial development followed rapidly in the train of conquest. The harvests became so abundant that a surplus was often available for shipment to other provinces; mines were opened, especially of iron tin, and lead, and, the remains of villas unearthed by archaeologists point to a condition of general prosperity. From Londinium, or London, which Tacitus describes about 60 AD as a thriving mart of trade, highways built in the solid Roman fashion, not a few of them in use today, radiated throughout the island, connecting with busy seaports, and thence with the system of communication which linked together the Roman world. When these roads were traversed by the emperor Hadrian, whose wall from the Solway Firth to the North Sea, costing $5,000,000 in our present currency, was but a portion of his interminable line of border fortifications, many flourishing towns were already in existence. In the south, to use modern names only, were Canterbury and Winchester, Bath and Exeter; in the east were Norwich and Colchester, while Lincoln and Leicester, Gloucester and Chester were centers of municipal life, and from York a chain of villages extended almost to the Forth and the Clyde.

But while subdued by Roman arms, Britain received no lasting impress from Roman arts, that language never superseding the Gaelic and giving place to the Germanic element, of which the Anglo-Saxon tongue is mainly composed, though as with the German itself containing a large number of words of Latin derivation. While the towns were Romanized, it was not so with the farming communities whose dwellings clustered around the villas of wealthy Italian landowners; nor with those who lived apart from their conquerors, retaining their own language, institutions, and laws, as was permitted to all except men whose enforced labor was needed for farm or mine. Thus we must not overestimate the civilization of Britain during the Roma period, its condition resembling somewhat that of northern Russia in the present day, a country where man is still hewing his way through tracts

of forest primeval, and where settlements are hardly sufficient to relieve the silence of nature's solitudes.

Woodland, moorland, and morass covered nine-tenths of its surface, and except in a few localities, the clearings on river banks were the merest strips of cultivation threading their way through an extensive waste. There was nothing to encourage the Romanization of Britain in the sense that Gaul and Spain were Romanized; there was little natural wealth, or at least such wealth as was then available; and so great was the scarcity of precious metals that the moderate tribute of three thousand pounds of silver a year was collected with difficulty. No wonder that this, the last of the northern provinces subjugated by the Caesars was the first to be left to its fate.

In the history of Britain, two ages of authentic annals are separated by a long era of fable and tradition. Of Clovis and Charlemagne we know that they were at least historic personages, however their exploits may have been exaggerated; but Hengist and Horsa, Arthur and Mordred are beings the fact of whose existence is doubtful, and whose deeds and adventures must be ranked as to credibility with those of Ulysses and Æneas. It was late in the third century that the channel pirates known as Saxons, belonging to a confederation of German tribes, began to make themselves felt, sailing swiftly from harbor to harbor in long, flat-bottomed boats, freighted with warriors and driven by fifty oars. Slave-hunting was the principal object of their raids, and this was attended with features even more repulsive than the modern slave-hunting of Arab traders. "Before setting sail homeward," continues Sidonius, "their wont is to slay by protracted and most painful tortures one man in every ten of those whom they have captured, in compliance with a religious custom which is even more lamentable than their superstitions."

At first the raids of the Saxons were confined to the shores of Gaul, and it was not until the year 364 that we hear of any organized attack on the coasts of Britain, though after this date their ravages were incessant. So long as the legions remained they caused but little damage; but these withdrawn, the country fell a ready prey to the invaders, while the Picts, after many former incursions, swarmed without check or hindrance over the Roman wall. In vain did Britain's chieftains appeal to Honorius to replace the troops. "The barbarians", they wrote, "drive us into the sea; the sea horse guards drives us back on the barbarians; and between them we know not what to do." But the legions were needed for the protection of more important provinces, and the emperor made answer that they must provide for their own defense. Imitating the policy by which Rome had hastened its doom while seeking to avert it, they attempted to hire as mercenaries for protection against the Picts the freebooters who harried their coasts, thus matching barbarian against barbarian. They came, not as mercenaries but as conquerors, and from these pirate hordes was developed in due time the Anglo-Saxon dynasty, or group of dynasties, somewhat in the manner following.

First among those who were drawn to Britain's shores by promises of land and pay was a band of Jute, or Jutish warriors, a tribe whose name is preserved in the word Jutland, though dwelling probably on the southern coast of Scandinavia or in the Danish isles.

They came, as the legend relates, "in three keels," and at their head were Hengist and Horsa, ealdormen, or aldermen, of the tribe. First setting foot on the isle of Thanet, near the chalk cliffs of the Kentish shore, at a spot where are now a few grey cottages saved from destruction by a sea-wall, after much hard fighting they presently subjugated what is now the county of Kent, with certain neighboring territory. But the latter they could not long retain; for before many years they were

hemmed in on all sides by Saxon settlements, among them those of the Suthsexe and Eastsexe, these names being tribal and not territorial, as in the modern Sussex and Essex. In 495 the two Saxon ealdormen Cynric and Cerdic founded a colony on what is now the coast of Hampshire, and their conquests spreading afar, a quarter of a century later they deemed themselves strong enough to assume the title of royalty. Here was the origin of the powerful kingdom of the Westsexe, or West Saxons, that is to say of the kingdom of England; for such in time it became.

While under Saxon, Jutish, and Anglian leaders, there were founded seven or eight principal kingdoms, with a large number of minor states, all later united in one, the heptarchy belongs to the traditions and not to the history of the period during which Britain was gradually transformed into England. By the close of the sixth century there were Saxon colonies at least as far north and west as the estuary of the Severn; but it was in the southern and southeastern districts that their settlements were most numerous; for here was a region waiting to be plundered, one filled with the homes of wealthy provincials long after the legions were recalled from Britain's shores.

Thus it is that when the Saxons were fairly established in the country, we read of the costly furniture and appointments of their dwellings; their dishes of gold and silver, their tables and chairs elaborately carved and sometimes inlaid with the precious metals, their golden tissues and embroideries, and their silken and other tapestries ornamented with figures of birds and flowers.

In the village of Bignor in Sussex have been unearthed the remains of a country mansion belonging to the fifth century, which is thus in substance described by Wright in his Wanderings of an Antiquary. The several buildings enclosed a court more than a hundred feet square, with tessellated pavement, and on its inner side a covered colonnade. In the mansion itself, the hall with its central fountain was of the type which the Italians brought from their sunny land, the furnace which heated the banqueting room showing that they knew how to accommodate themselves to the rigors of a northern climate. The floors of the larger chambers were of costly and elaborate mosaic work, and the walls were aglow with frescos, some fragments of which still retain their original brightness of color. In one of the apartments were figures of dancing nymphs; in another was portrayed the rape of Ganymede, and elsewhere were pictures of the seasons, and of gladiators doing battle in the arena, with cupids acting as secutores. Here we have a glimpse of s the social life which the Saxons swept away; but no vestige remains of the cabins hr of serfs doubtless clustered around the outer wall that girt this abode of comfort and splendor; for here as elsewhere was the union of patrician wealth and plebeian degradation common to the Roman world.

Of the conversion of the Anglo-Saxons to Christianity the story as told by Baeda in his Ecclesiastical History has been too often repeated to require here other than passing allusion. Presently England had her St. George and Ireland her St. Patrick, the former bringing with him a somewhat tarnished reputation for a patron saint; since as Gibbon relates, he had made his fortune at the expense of his honor, swindling the Roman government in an army contract for bacon.

Corrupt as was the church at this early period, giving ready admission to rites and doctrines borrowed from pagan schools and temples, the conversion of Saxon freebooters and colonists to Christianity was doubtless a boon for the people whom they had conquered.

It was with this conversion, as Macaulay puts it, that the land which had been lost to view as Britain reappears as England; and in the chronicles of the age there is sufficient evidence that the reign of

priestcraft, whatever its evils, was better than the reign of brute violence. We read of the most bloodthirsty of tyrants seized with remorse when at the zenith of their power, laying aside their crowns, devoting their wealth to charitable purposes, and seeking to atone by prayer and penance for the guilt of the past. In times of war the cruelty of the conquerors was mitigated; and in times of peace communication was opened with the great countries of antiquity whose glories had not entirely departed. "Many noble monuments," says Macaulay, “which have since been destroyed or defaced, still retained their pristine magnificence. The dome of Agrippa still glittering with bronze, the mausoleum of Adrian not yet deprived of its columns and statues, the Flavian amphitheater not yet degraded into a quarry, told to the Mercian and Northumbrian pilgrims some part of the story of that great civilized world which had passed away. The islanders returned with awe deeply impressed on their half opened minds, and told the wondering inhabitants of the hovels of London and York that near the grave of St. Peter a mighty race, now extinct, had piled up buildings which would never be dissolved till the judgment day." Such was the condition of affairs when Alfred the Great appears on the scene, repelling, after a fierce struggle, the last invasions of Danish and other barbarians of the north.

The youngest of the five sons of King Aethelwulf, Aelfred, or Alfred as he is usually called, was sent when five years of age to Rome, accompanied by a train of wealthy nobles, and as his principal chronicler relates, was anointed king by Leo IV. He was a well-favored lad, gracious of aspect and speech, and though he had little education, except what he gave himself in later years, was almost from his cradle a searcher after wisdom.

Like other youths, he cared more for hunting than for books, and in this he was bold and skilful. Within a month after his father's death, which occurred in April, 871, he fought his first battle against the Danes with indecisive results, peace being concluded thereafter. But the Danes returned, and notwithstanding treaties, vows, and as some have it, payments in money, presently drove him from his throne, so that for a time he was glad to take refuge in the forests of Somersetshire. Then comes the story of the cakes, the visit in disguise to the Danish camp, and the final overthrow and expulsion of the invaders, all of which has been a thousand times repeated.

With the wars of Alfred the raids of the Norsemen came for the moment to an end. For centuries these pirate hordes were the scourge of northern Europe, and especially of England, whose shores were but a few leagues distant from their own. They were the most ferocious and vindictive of warriors, hating the very name of Christianity, and inflicting on Christian Saxon even greater atrocities than heathen Saxon inflicted on Christian Celt. Settling in colonies on the eastern coast, and constantly reinforced from beyond the sea, they gradually spread throughout the fairest portions of the land, draining its wealth, exhausting its resources, and crushing out its nascent civilization. It was a long and terrible struggle, lasting for several generations, each side alternately gaining and losing the supremacy. Defeat was followed by massacre and massacre by retribution; cities were plundered and razed to the ground, and it was not until the eve of the Norman Conquest that, through intermarriage and blending of tongues, the two races learned to dwell together in peace. Thus are the English people and the English language an admixture of many elements, having as their base the Celtic the Saxon, the Scandinavian, and the Norman, but with nearly all the nations of Western Europe represented in their component parts.

It was not until the days of Alfred that England possessed a code of laws; for “inter arma silent leges,” as the Roman saying is. He was less a lawmaker than a compiler of laws; and that he established trial by jury is one of the many fictions connected with his reign; for this is an institution from time immemorial among the Teutonic races. “I Alfred the king," he says,—to use his own, words as rendered in modern English—"gathered together these laws, and had many of them written which our forefathers held—those that I approved. And many of them that I approved not I cast aside by the counsel of my wise men. I dared not write down much of my own; but such as seemed to me the best I have gathered herein, and the rest I have thrown aside."

That he founded the university of Oxford is another of the fabrications connected with the name of Alfred, who had he done half of what is ascribed to him, would have surpassed the most glorious achievements of a Caesar or a Charlemagne. Yet on the strength of this story the oldest of Oxford colleges celebrated not many years ago its thousandth anniversary, and it is not improbable that he established at this modern seat of learning a school or academy which in time developed into a college. Certain it is that he had such a school attached to his own residence and much it was needed; for except the priests, there were probably not a score of persons in England who could understand the ritual or translate a Latin sentence. Himself setting the example, he began the study of Latin at forty years of age, translating works of Bede, Pope Gregory, and others, and inserting therein treatises his own, chiefly on politics and religion. Other schools he established in connection with monasteries which he either supported or founded, inviting scholars from foreign lands to aid him in his work. While he cannot be termed the author of English literature, as some would have us believe, it was in his reign that English literature began to be.

Alfred was an excellent business man; a financier as well as a statesman and soldier. His budget, like his code of laws, was the first one framed in England; his revenues he divided into two parts, one for the church, for charity and education, and the other for purposes of government, among which was the bringing together from all nations, and in numbers almost beyond counting, of workmen skilled in all kinds of building. But perhaps the greatest service which he rendered to his country was the founding of the English navy, without which the land would have been forever subject to the invasions of foreign powers. "And Alfred the King," says his biographer, "commanded that they should make long ships to contend with those of the Danes; twice as long were they, and some had sixty oars and some yet more; swifter they were and steadier and more lofty also. They were neither made after the fashion of the Frisian ships nor after that of the Danes; but as the king judged they would be most useful."

Here we have the inception of the most powerful navy in the world; for though there were vessels of war before this time, they were little better than the open boats of the Vikings, for which, indeed, they were no match. It was not, however, until several centuries later that England could be termed a maritime power; to the fleets which Sweyn and Canute commanded no effectual resistance was offered, nor is it probable that the one which Harold assembled could have held in check for a single hour the armada of William the Norman.

Of the Normans mention has already been made in connection with the annals of France. Originally a Scandinavian race, and the most dreaded of all the piratical bands which ravaged western Europe, their flotillas were the terror of every coast and their armies penetrated, as I have said, even to the walls of Paris. Settling in one of the most fertile of Gallic provinces, they rapidly acquired the arts of

peace, but without losing the qualities which had caused them to be dreaded more than were the destroying hordes of Attila and Genseric. Embracing Christianity, they learned all that the church could teach them; and laying aside their barbarous jargon, they adopted that of the country in which their lot was cast. In a word they became civilized, infinitely more so than were either Saxon or Dane, gradually exercising a powerful influence on the politics and even on the social life of Europe. Their nobles and knights became not only the bravest of soldiers, but the most courtly of gentlemen; and their wealth they expended, not as did the Saxons in gluttony and drunkenness, but on costly mansions, on high-bred steeds and richly decorated armor, while at their banquets, never disgraced by intemperance, were the choicest of meats and wines.

Such was the people which prostrated Saxon England under its feet as completely as Cyrus the elder laid low the might of the Medes. And well perhaps that it was so; for the revolution which for a time wrested from England her freedom ended with giving it new birth, the conquerors gradually changing into countrymen and all that was worth preserving in Saxon institutions being retained in substance if not in form. Yet, for a time, the vanquished races were reduced to a condition of slavery under the name of serfdom, a condition far more degraded than ever was that of the Russian serf. Their lands and all else that they possessed were divided among the invaders; they were liable to enforced labor, and to a penal code most cruelly enforced; in a word, so absolute was their subjection that for more than a century and a half England has no history in the proper sense of the term.

Under the sons and successors of William the Conqueror England first appears as a European power, conquering Normandy as Normandy had conquered England, and later extending her conquests to other portions of France; so that at the accession of the Plantagenets in the person of Henry II, her domain extended southward beyond the channel almost to the border of Spain. But fortunately for both countries, and especially for England, the Plantagenets could not make good their hold on France, though wasting lives by tens of thousands and treasure by hundreds of thousands in the attempt. Had they done so it is doubtful whether the nation would ever have had a separate and independent existence. Her monarchs, her nobles, and her wealthy families would have lived apart from the body of the people, expending their money in luxurious living on the banks of the Seine rather than on the banks of the Thames. Instead of being the language of Shakespeare and Milton, the English tongue would have been a mere dialect, without a literature and probably without a settled orthography, while riches, fame, and power would have been restricted to those to whom France was the land of their nativity or adoption. Thus the loss of empire south of the channel during the reign of King John was a blessing and not a calamity, as historians would have us believe. Compelled to reside on the sea-girt island which they had subdued, Norman lord and Norman knight gradually made common cause with Saxon thane and earl, for both were alike oppressed with the tyranny of a false and craven monarch. The descendants of those who had fought under the Conqueror, and of those who had fought under Harold, were for the first time drawn together in friendship, with mutual aims and interests, the first fruits of earl of Northumberland their reconciliation appearing in the Magna Charta, framed for the benefit of both and wrested from the king by their joint exertions. It is at this point that the real history of the English nation begins.

Of the formative period of the British monarchy I have spoken somewhat at length; for this is the period that is least understood and for which there are few reliable data. As to the later annals of that monarchy it will here suffice to touch only on the most salient features. Among the later Plantagenets and the sovereigns of the houses of Lancaster and York, six out of nine kings were deposed, and five of

the six forfeited their lives as well as their crowns; while of the Stuarts one was beheaded, and another driven into exile. This was an age in which physical force was used as a check on misrule, thus bringing the proudest monarch to terms; and it would be difficult for the modern Englishman to realize how rapidly and effectually this check was applied. At the present day the effect of such insurrections and revolutions as have been witnessed in England a score of times would be far more disastrous than the worst form of misgovernment; for with the accumulation of wealth have been undertaken public and private works on a very large scale; so that in case of rebellion, the results of centuries of development and of the outlay of hundreds of millions might perish in a night. The chattel wealth, moreover,—that which is accumulated in warehouses, shops, and dwellings—is many times greater than in the days of the Plantagenets, when wealth consisted mainly in herds and harvests, and when the riches of the entire country in all other forms were less than are now contained in a second or third class city. Manufactures were few and primitive; commercial credit can hardly be said to have existed; and there was no standing army, or none worthy of the name, though an irregular force or at least an armed, mob, could be collected at a moment's notice; for every man was more or less a soldier, if there were few professional soldiers. Nor should we overestimate the evils of these civil wars and disturbances, the farm laborer following his plow and the squire his hounds over the sites of what are now historic battlefields, within a week after the conflict was ended, and as though it had never occurred.

Between the reign of the Plantagenets and that of the Stuarts, England became wealthy and great, as wealth and greatness were then esteemed. If there was little money in the land, there was an abundance of food and raiment; and as for the memories of "glorious war," there were Cressy, Poitiers, and Agincourt, though followed by no permanent or useful results, except the acquisition of a few million crowns in the way of ransom or indemnity. Of the armada episode I have already spoken in connection with the annals of Spain; and it remains only to be said that this was the first among the notable exploits of the British navy, exploits alternating at times with shameful defeat, as when Van Tromp and De Ruyter swept it from the seas, and the sound of Dutch cannon, heard in London, spread panic fear among its citizens.

From Elizabeth and from certain of her predecessors the nation would tolerate exactions and arbitrary measures which it would not endure at the hands of feebler rulers; and this such stiff-necked monarchs as Charles I and James II soon learned to their cost. After the flight of James and the accession of William III was already established, the polity which embodies in the main the present institutions of England—a polity which though never strictly defined or observed—was never again permitted to lapse into despotism.

The United Kingdom, it may here be said, has no written constitution such as that of the United States; the one which she possesses being the result of prescriptive usages gradually adopted as the fundamental laws of the state. Among these unwritten laws, though implied in the Magna Charta, is that no taxes can be levied except by vote of parliament; nor without that vote could the queen of Great Britain and empress of India collect today a sixpence wherewith to pay for her breakfast, albeit her supplies, with those of her numerous offspring and relatives, amounting in all to £600,000 a year, are usually voted as a matter of course and without demur.

But before proceeding further, let us glance for a moment at the condition of England at the close of the reign of Charles II, as described in the graphic pages of Macaulay. a few of whose statements I will

quote or in substance repeat; for they are more descriptive and more thoroughly substantiated than any that I could furnish. "Could the England of 1685 be by some magical process set before our eyes, we should not know one landscape in a hundred or one building in ten thousand. The country gentleman would not recognize his own estate; the inhabitant of the town would not recognize his own street, or even his native city. Everything has been changed except the great features of nature and a few massive and durable works of human art. We might find out Snowdon and Windermere, the Cheddar cliffs and Beachy head; we might find out here and there a Norman minster or a castle that witnessed the wars of the Roses; but with such rare exceptions everything would be strange to us. Many thousands of square miles which are now rich corn land and meadow interspersed with green hedgerows and dotted with villages and pleasant country seats, would appear as moors overgrown with furze or fens abandoned to wild ducks. We should see straggling huts built of wood and covered with thatch, where we now see manufacturing towns and seaports renowned to the furthest ends of the earth. The capital itself would shrink to dimensions not much exceeding those of its present suburb on the banks of the Thames. No less strange to us would be the garb and manners of the people, the furniture and the equipages, the interior of the shops and dwellings. Such changes in the state of a nation appear at least as well entitled to the notice of an historian as changes of dynasty or ministry.

There were about 5,500,000 people in England and Wales at the death of Charles II; less than one-fifth of the present number, and only a little above the population now contained in the city of London. The growth of the kingdom was by no means uniform; for there were large tracts of country almost in a condition of barbarism long after the opening of the eighteenth century, due to inclement skies and the ravages of war, which do not consist with careful husbandry. Early in the nineteenth century coal was discovered in the northern counties, and proved a more fruitful and permanent source of wealth than any deposits of so-called precious metals, causing the tide of migration to flow northward, and leading to the rapid development of such manufacturing centers as Manchester, Leeds, and Birmingham. Somewhat before this time there was much of lawlessness in the region beyond the Trent. Armed bands of robbers infested the highways; the country seats of the wealthy and even the larger farmhouses were fortified, the inmates sleeping with weapons at their sides and with boiling water in readiness to scald the aggressor who should come within reach. No one thought of visiting these districts without first making his will; judges and barristers traveled on circuit escorted by a strong guard and carrying their provisions, since from one town to another they must journey through a wilderness.

There were not many wealthy men in England in the days of Charles II,—a score or two at most who would now be considered as more than well to do, and even among these the largest incomes seldom exceeded £20,000 a year. The estate of the duke of Ormond yielded £22,000 a year; that of the duke of Buckingham, £19,600, and of the duke of Albermale £15,000, with £60,000 in ready money. These were the three richest, or certainly three of the richest of seventeenth century Englishmen, the average revenue of a temporal peer not exceeding £3,000, and of a baronet or member of the house of commons from £800 to £1,000. It was among state officials that the largest incomes were to be found, though they were but temporary, depending on the favor of the monarch or the will of his parliament. The offices of the first lord of the treasury and of the secretary were each supposed to be worth,£100,000 a year; that of the lord lieutenant of Ireland £40,000; and of the lord chancellor an enormous, but unknown amount; while any statesman at the head of some department of affairs

could accumulate sufficient to purchase and support a dukedom. Places were for sale and openly for sale, salaries being the smallest part of their gains, while from the premier down to the junior clerk bribery and corruption in their grossest forms were practiced without disguise or reproach. Thus did "the merry monarch" pamper his ministers and courtiers, literally gorging them with money while starving his public service; grudging the expense of army and navy, of pensions to aged and needy officers, and of embassies to foreign courts. As Macaulay remarks, "the sumptuous palace to which the populace of London gave the name of Dunkirk house, the stately pavilions, the fish-ponds, the deer park, and the orangery of Euston, the more than Italian luxury of Ham, with its statuary, fountains, and aviaries, were among the many signs which indicated the shortest road to boundless wealth."

Toward the end of the seventeenth century, the total revenue of England did not exceed £1,500,000, and there were £650,000 of debt; toward the end of the nineteenth century the revenue exceeded £90,000,000 and there were £670,000,000 of debt, the latter having risen to as much as,£861,000,000 when in 1815 the peace of Paris was ratified; for the wars with America had cost more than £100,000,000, and those with Napoleon more than £300,000,000. Yet in 1685 the public burden was far more grievous to be borne than in 1895, though meanwhile the yearly amount collected in taxes had increased sixty fold, and the amount of the nations liabilities a thousand fold; for during this period had been developed infinite sources of wealth, and the accumulation of wealth had been on an enormous scale.

In the time of Charles II agricultural products far exceeded in value that of all other fruits of industry; yet only a small portion of the land was cultivated, and that in the rudest fashion. Deer, wild boars, and wild bulls wandered through uncleared forest lands as freely as though they were in the wilds of America. Domestic animals were of inferior quality; horses, for instance, of native breeds being worth on an average not more than fifty shillings apiece. Rotation of crops was little understood and farming implements and processes were of the most primitive character. For 1696 the total crop of cereals of all descriptions was estimated at less than 10,000,000 quarters, or 80,000,000 bushels, of which only 2,000,000 quarters were in wheat; for wheaten loaves could be afforded only by the wealthy, and the bread set on the tables of farmers and tradesmen would raise a riot in a modern workhouse or prison.

There were some few manufactures, but of insignificant volume, and of manufacturing centers one of the most thriving and populous was Manchester, where perhaps 2,000,000 pounds of cotton a year—a quantity that would not now suffice for a day's consumption—were wrought into fabrics on handlooms; for Arkwright had not yet taught how to work with the speed and precision of machinery. There was not a single printing-press in this city which now contains hundreds of printing-houses, and which far surpasses in wealth and population such capitals as Berlin and Madrid. Leeds, where today is the home of half a million of people, was already boasting of its woolens, and of the immense sales made on its bridge in the open air, —hundreds, nay thousands of pounds on a single market day, greatly to the increase of wealth. Sheffield was proud of its cutlery, and Birmingham of its hardware, though somewhat ashamed, let us hope, of its reputation for the coining of counterfeit money. At these and other centers the owners of workshops and factories grew rich; but the condition of operatives was pitiful in the extreme. Sixpence a day was an average wage for workers at the loom, and this was supplemented by the toil of their children, sometimes not more than seven or eight years of age; so that in the city of Norwich it was stated with an air of exultation that young boys and girls

employed in the clothing trade created wealth exceeding by £12,000 a year what was necessary for their support. Money must be made; there were the nobility and gentry, and the innumerable royal progeny to be maintained in idleness. The war of labor against capital had begun, and with a bitter vehement cry; but as yet there were none to champion its cause, no newspaper even to publish its wrongs. In one of the ballads of the times, now preserved in the British museum, the master clothier is represented as expressing himself as follows:

In former ages we used to give,
So that our work-folk like farmers did live;
But the times are changed, we will make them know.
We will make them work hard for sixpence a day.

Though a shilling they earn if they had their just pay.
If at all they murmur and say 'tis too small,
We bid them choose whether they'll work at all.
And thus do we gain all our wealth and estate,
By many poor men who work early and late.

Among watering places Bath was the most frequented, and already somewhat of a town, since for many centuries it had been the seat of a bishopric, where at times the king held court. Yet it was but a cluster of cottages, cabins, and narrow, filthy streets, enclosed by an ancient Roman wall of which fragments may still be seen. As to the comforts and luxuries offered to visitors who went there in search of health or recreation, a description has been given by one who wrote some three-score years after the revolution which placed William III on the throne. In his younger days, he says, the richest of the patrons who frequented the springs lived in apartments no better than those which were later occupied by their servants. There were no carpets on the floors of dining-rooms; but in their place a coating of soot and small beer, a mixture intended to conceal the dirt. No part of the house was painted, though the chambers set aside for the wealthy and noble were hung with coarse woolen stuffs, and supplied with rush-bottomed chairs; while a slab of freestone for the fireplace, with a poker and pair of tongs, completed the furniture of what was then considered a fashionable lodging. Contrast this with the modern town of Bath, one of the finest of English cities, renowned alike for the elegance of its buildings and the beauty of its site; with spacious streets and terraced slopes in its newer quarters, and in its ancient quarter a fifteenth century abbey church with restorations of recent date.

And so it is with other cities; not those the products of whose looms and forges are distributed throughout every quarter of the earth, but towns where wealth elsewhere created and accumulated is expended in seeking for health and wholesome recreation. Cheltenham, for instance, is a larger city than any that existed in the time of the Stuarts, London alone excepted. Yet, at the close of the seventeenth century, it is described as a country parish, whose fields, now covered with costly and handsome villas, were well suited for tillage and pasture. About the same date Brighton is mentioned as a place that had once been a prosperous fishing village, with 2,000 people or more, but was then sinking rapidly into decay. The buildings were gradually being swallowed up by the sea, and only a few poor fishermen dried their nets on the cliffs, where rows of neat residences and stately mansions, several miles in length, present their front to the sea.

The metropolis and other cities that require more detailed mention will be reserved for later description. In conclusion let us hear what an eminent writer has to say of the squires and country gentlemen of the seventeenth century, and of the nineteenth; the latter, though described as in the middle of the present cycle, differing but slightly from the types which exist today. "The modern country gentleman usually receives a liberal education, passes from a distinguished school to a distinguished college, and has every opportunity to become an excellent scholar. He has generally seen something of foreign countries. A considerable part of his life has been passed as a rule in the capital; and the refinements of the capital follow him into the country. There is perhaps no class of dwellings so pleasing as the rural seats of the English gentry. In the parks and pleasure grounds, nature dressed but not disguised by art, wears her the most alluring form. In buildings, good sense and good taste combine to produce a happy union of the beautiful and the graceful. The pictures, the musical instruments, the library would in any other country be considered as proving the owner to be an eminently polished and accomplished man.

"A country gentleman who witnessed the revolution was probably in receipt of about a fourth part of the rent which his acres now yield to posterity. He was therefore as compared with his posterity, a poor man, and was generally under the necessity of residing, with little interruption on his estate. To travel on the Continent to maintain an establishment in London, or even to visit London frequently, were pleasures in which only the richest proprietors could indulge. Many lords of manors had received an education differing little from that of their menial servants. The heir of an estate often passed his boyhood and youth at the family seat, with no better tutors than grooms and gamekeepers, and scarce attained learning enough to sign his name to a document. His chief serious employment was the care of his property.

He examined samples of grain, handled pigs, and on market days made bargains over a tankard of ale with drovers and hop merchants. His chief pleasures were commonly derived from field sports and from an unrefined, sensuality. He troubled himself little about decorating his abode, and if he attempted decoration, seldom produced anything but deformity. His table was loaded with coarse plenty, and guests were cordially welcomed to it. The habit of drinking to excess was general in the class to which he belonged, and the ladies of the house whose business it had been to, cook the repast, retired as soon as the dishes had been, devoured, and left the gentlemen to their ale and tobacco. The coarse jollity of the afternoon was often prolonged till the revelers were laid under the table."

Such while was seventeenth century England, as related in part by Macaulay, whose description, somewhat highly colored, may be accepted as reliable in the main, though his political narrative is often more eloquent than truthful. It is impossible, for instance, to suppose that James II was such an imbecile and dolt as Macaulay portrays him; nor was William III by any means so capable a monarch, or of such heroic mold as the historian would have us believe. Doubtless the hero of the revolution was a valiant warrior and a competent leader, though his tactics were learned from suffering defeat in the Netherlands at the hands of more able generals. But as a statesman he did not excel, and as a financier he proved himself a failure; the commons for the first time taking upon themselves the control of the revenue, and strictly enforcing their right to appropriate the nation's income to the various branches of expenditure. With all his extravagance, Charles II had left the country only,£665,000 in debt, on which the annual charge was less than,£40,000; during the reign of the prince of Orange this debt was increased to £12,767,000, while the war of succession in the days of Queen Anne caused a further increase to £36,175,000.

The reign of Anne is noted chiefly for the wars of Marlborough, the growth of literature, and the South Sea bubble, of which last I have already spoken in connection with the annals of France. As to the wars it need only be said that, however glorious it may have been to lay waste the fairest provinces of France, they resulted in no lasting benefits to England though, with very material benefits to John Churchill, duke of Marlborough, to whom was granted the manor of Woodstock, with a palace erected in its park at a cost of £240,000, besides marriage portions for his daughters, and for the duke and his wife a yearly income of,£64,000. While one of the foremost of generals, the victor of Blenheim, in common with the victor of Waterloo, was never a popular man.

His vices were serious, and of the character that is most prejudicial to public men. Worst among them were his greed and avarice in accumulating and hoarding money, giving color to the charges of peculation brought against him in his later years. Moreover, he had served two masters, forsaking the cause of James II as soon as it became apparent that the prince of Orange was destined to rule over England. Yet in this respect he was no worse than his associates, all of whom were guilt of similar desertion.

When the crown of England was offered in 1714 to George Louis, Duke of Cambridge, he was by no means in haste to wear it, tarrying long in Hanover, and when he came, bringing with him his German companions, his German chamberlains and secretaries, and as mistresses, two of the most homely of German fraus, one of whom became the duchess of Kendal and the other the countess of Darlington. They were known to the people, however, as the maypole and the elephant; for the duchess was exceeding lean and tall of stature, and the countess abnormally fat and of unwieldy bulk. Such were the king and court whom English nobles welcomed, while thousands of English citizens cried, Hurrah for King George!

Yet George I was better than the average of monarchs, keeping his compact with his British subjects and ruling with justice and moderation. If he passed most of his time in Hanover, it is not to be wondered at; for his heart was there it, and though England was his kingdom, was never his country; he knew full well that its people had made him their sovereign merely because they wanted him, because he served their turn, sneering at him behind his back, and laughing at his uncouth manners. His reign was brief; for he was more than fifty years of age when appointed to the throne; and death over took him not in the land that to him was the land of his exile, but in his native country which he loved. He had promised the duchess of Kendal, it is said, to make himself known to her after death; and this he did, as the duchess believed, in the shape of a raven hopping in at the window of her Twickenham villa. Presently the duchess followed him, leaving to her Hanoverian relatives a large amount of cash, jewelry, plate, and other forms of plunder; for if George himself did not steal, he said to his attendants and mistresses, "Take whatever you can get."

In manners the second George was even more outlandish than his father; shaking his fist in the face of his father's courtiers, and calling them rascals while himself assuming what his father had never assumed,—the right divine of kings to govern wrong—yet he was by no means a despicable nor even an unpopular monarch. His subjects laughed at him because of his eccentricities, which constantly made him appear in a ridiculous light; but nevertheless they liked him; for he was a fairly honest man, certainly more so than his ministers; he was a straightforward, clear-sighted, and above all a brave man; and unto bravery much is forgiven. At Oudenarde he had helped to save the British from disastrous defeat, at Dettingen the dapper, doughty little king had fought right valiantly.

At the latter of these engagements, the last at which a British sovereign appeared in person, his horse ran away with him almost into the enemy's lines; but dismounting, he placed himself at the head of the infantry, shaking his rapier at the French and calling on his men to follow him, in broken English it is true, and lunging like a fencing-master; yet with boldness and spirit.

There is perhaps no period of their history over which the English would sooner draw a veil than the earlier portion of the reign of George II. Walpole, called into office after the widespread ruin which attended the collapse of the South Sea bubble, still remained in power. He was an excellent business man, at a time when the House of Commons contained few men of business; he was possessed of strong sagacity and foresight, and so far he was well fitted to shape the destinies of a nation whose wants were material rather than political. But he was himself one of the most corrupt and mercenary of all the members of a corrupt and venal parliament, at a time when votes were bought at Election Day and sold in the commons for pensions, place, or cash. Yet let us not judge him too harshly; for this system did not originate with him, nor under him did it reach its height, his successor, Henry Pelham, using the arts of bribery and dissimulation in such fashion as even Walpole himself would have been ashamed to adopt. Meanwhile England was prosperous, and Englishmen were living in peace and plenty in their bluff independent way.

Let us hear what Thackeray has to say as to the administration and character of this famous or infamous premier, who combined, in truth, a strange admixture of qualities. "But for his resolute counsels and good-humored resistance, we might have had German despots attempting Hanoverian regimen over us; we should have had revolt, commotion, want, and tyrannous misrule in place of a quarter of a century of peace, freedom, and material prosperity, such as the country never enjoyed until that corrupter of parliaments, that dissolute, tipsy cynic, that courageous lover of peace and liberty, that great citizen, patriot, and statesman governed it. In religion he was little better than a heathen; cracked ribald jokes at big- wigs and bishops, and laughed at high church and low. In private life the old pagan reveled in the lowest pleasures; he passed his Sundays tippling at Richmond, and his holidays bawling after dogs, or boozing at Houghton with boors over beef and punch. He cared for letters no more than his master did; he judged human nature so meanly that one is ashamed to have to own that he was right, and that men could be corrupted by means so base. But, with his hireling house of commons, he defended liberty for us; with his incredulity he kept churchcraft down. There were parsons at Oxford as double-dealing and dangerous as any priests out of Rome, and he routed them both. He gave Englishmen no conquests; but he gave them peace and ease and freedom; the three percents nearly at par, and wheat at five or six and twenty shillings a quarter."

It was during the reigns of Anne and the two Georges that literature and the influence of the press first made themselves felt as powers in the land; for though the literature of the Elizabethan era may have been more resplendent, it brought neither honors nor wealth to authors, none of whom, except perhaps Spenser and Shakespeare, could live comfortably on the proceeds of the pen. But at the later period of which I speak, there were not a few whose toil was fairly rewarded. Pope, for instance, accumulated what was then a fortune; Dryden, Addison, and others earned at least a moderate income, and before the death of George II, in 1770, Johnson was in possession of a competence.

In the time of Walpole, though himself indifferent to literature of whatever kind, large sums of money and valuable patronage were bestowed on those who could write ably in support of the government. Newspapers and other periodicals, of which, until the close of the seventeenth century there were

none outside of London, began to multiply apace and to be widely distributed. Yet thousands of newspapers and hundreds of books are printed today for one that was published in the days of the Georges; while it is probable that such writers as Walter Besant and William Black receive more for the work of single year than the for founders of The Spectator or the first of English lexicographers received in a lifetime.

While in culture and wealth the people had steadily progressed, their habits, and especially their drinking habits, had not changed much for the better since the era before describes. Long before that time this vice was all too common among Englishmen, as even today it is; though to get drunk every night is no longer considered as among the indispensable accomplishments of a gentleman. "Superfluity of drink," remarks Tom Nash, writing in the days of Elizabeth "is a sin that is accounted honorable." Elizabeth herself drank deeply at breakfast from a foaming tankard of ale. "In England," says Iago "they are most potent in potting. Your Dane, your German, and your swag-bellied Hollander are nothing to the English." In the reign of Anne hard drinking was fashionable, and many of the fore most men of the day were also the foremost of tipplers. Addison was not free from this common failing of his times. The earl of Oxford, whose character was otherwise beyond reproach, often came drunk into the presence of the queen. Bolingbroke, even when in office, would pass the entire night over his cups, and then, after binding a wet napkin round his head to drive away the effect, set forth without sleep to conduct the affairs of the nation. Of Walpole it is related by Lecky that, when a young man, his father would pour into his glass a double portion of wine, saying, "Come, Robert, you shall drink twice while I drink once; for I will not permit the son in his sober senses to be witness to the intoxication of his father."

Such training bore its fruit. Even among women intemperance was not uncommon. Describing the parties held at Tunbridge Wells, where music was the entertainment and tea the usual refreshment. Gay speaks of a certain damsel who was somewhat eccentric in her tastes. “I have known" he, says, "some young ladies who, if ever they prayed, would ask for some equipage or title, or perhaps for a husband; but this lady, who is but seventeen and has £30,000 to her fortune, places all her wishes on a pot of good ale.” Among the lower classes matters were even worse; for nearly all their money was expended in drink, and for this they were content to go without sufficient food or decent clothing. In 1736 there were more than 7,000 licensed dram-shops in London, one to every six houses and to every 40 inhabitants, to say nothing of 3,200 beer-shops where gin was sold in secret; while in the provinces, signs displayed on roadside taverns informed the wayfarer that he could get well drunk for a penny, dead drunk for two pence, and without further expense sleep off the effects of his orgies on the clean straw that lay in the cellar.

Gambling was also a fashionable vice, especially during the fever of speculation which infected all classes at the time of the South Sea mania. "Gaming," writes Seymour, “has become so much the fashion, that he who in company should be ignorant of the games in vogue would be reckoned low-bred and hardly fit for conversation.” "Books! prithee." exclaimed the dowager duchess of Marlborough, "don't talk to me about books; the only books I want to know are men and cards.” Everyone played at cards and played for money, from royalty down to the clergy, a portion of the stakes being sometimes devoted to charity. Says a chronicler of the time of George II, "This being Twelfth-day, their majesties, the prince of Wales, and the three eldest princesses went to the chapel royal, preceded by the heralds.

The duke of Manchester carried the sword of state. The king and prince made offering at the altar of gold, frankincense, and myrrh, according to the annual custom. At night their majesties played at hazard with the nobility for the benefit of the groom-porter, and 'twas said the king won 600 guineas, the queen 360, the duke of Grafton and the earl of Portmore several thousands."

In London there were several gambling resorts, chief among which was White's chocolate-house, where the duke of Devonshire lost a valuable estate at a game of basset. In the green-rooms of theaters thousands of pounds changed hands in a single night. Many fashionable women were inveterate gamesters, one of the most notorious being the daughter of the premier, Henry Pelham, while in her Diary Lady Cowper mentions sittings of the court at which the lowest stake was 200 guineas. Lotteries were also in vogue, and were used by the ministry in power as a means of raising money without loss of popularity. In 1711 Addison writes to a friend in Ireland, "I cannot forbear telling you that last week I drew a prize of £1,000 in the lottery." Westminster bridge, begun in 1736, was mainly built from the proceeds of lotteries; and thus were acquired by the government the famous Harleian manuscripts and the library and collection of Sir Hans Sloan, deposited in Montague house; such was the origin of the British museum.

Let us turn for a moment to the brighter side of English society; and this I cannot describe better than in the words of Thackeray, though tinged a little with fustian and flattery, and referring to a somewhat later period. "It is to the middle class we must look for the safety of England; the working educated men, the good clergy not corrupted into parasites by hopes of preferment, the tradesmen rising into manly opulence, the painters pursuing their gentle calling, the men of letters in their quiet studies; these are the men we love and like to read of in the last age. How small the grandees and the men of pleasure look beside them! How contemptible the story of the George III court squabbles are beside the recorded talk of dear old Johnson. What is the grandest entertainment at Windsor compared to a night at the club over its modest cups, with Percy and Langton and Goldsmith, and poor Bozzy at the table. I declare I think of all the polite men of that age Joshua Reynolds was the finest gentleman. And they were good, as well as witty and wise, those dear old friends of the past. Their minds were not debauched by excess, or effeminate with luxury. They toiled their noble day's labor; they rested and took thier kindly pleasure; they cheered their holiday meetings with generous wit and hearty interchange of thought; they were no prudes, but no blush need follow their conversation; they were merry, but no riot came out of their cups. Ah! I would have liked a night at the Turk's head, even though bad news had arrived from the colonies, and Doctor Johnson was growling at the rebels; to have sat with him and Goldy, and to have had heard Burke, the finest talker in the world, and to have had Garrick Hashing in with a story from his theater. I like, I say, to think of that society and not, only how pleasant and how wise, but how good they were."

At this time there were many thousands of middle-class families in easy circumstances, both in the metropolis and in the provinces; families, that is, with incomes of from £300 to £500 a year, equal in purchasing power to five times that amount today. Besant in his London gives the expenses of a well-to-do householder in 1760 at about £400 a year, against £1,300 in 1850, while in 1900 they would probably not be far short of £2,000. The household is supposed to consist of husband and wife, four children, and two servant maids, the scale of living being the same in both instances. For rent and taxes £66 are allowed in 1760 and £150 in 1850; for the table and for fuel £190 and £420; for clothing £64 and £120, and for education £8 and £143 respectively.

In 1760 nothing is allowed for traveling or for books or other literature, while in 1850, £190 is devoted to these purposes; while the items of £11 and £42 set aside for sickness indicates almost a fourfold increase in doctors' bills. Habits were far more simple then than now, and except for drinking, far more healthful, especially as to diet and exercise. In the morning tea or chocolate was served with a light and early breakfast and dinner was at two, when the business of the day was finished or left to subordinates. There were certain dishes for certain days, as roast goose at Michaelmas, salt beef at Martinmas, roast beef with beans and butter at Midsummer, and on Easter day, veal with a gammon of bacon and a tansy pudding; while at dessert there were always sweetmeats and fruits, and to drink—madeira and port.

Everyone had his club, usually in a tavern or coffee-house, where he transacted business in the morning and chatted and tippled in the evening. It was at these clubs that the commerce of London was largely conducted and there was one or more, for every class, chief among which were Garraway's, Johnathan's, and Lloyd's, while the Jamaica was for those engaged in the West Indian trade the Baltic for those who dealt with Russia, and for booksellers there was the Chapter in Paternoster row. Women lived much apart, visiting among themselves in the day time and in the evening remaining at home; for the streets were infested with thieves and footpads so that no woman ventured abroad after dark without escort. Their chief occupations were needlework, painting, the copying of music, and the confection of cakes and pastry; among their recreations was an occasional visit to Vauxhall, where they enjoyed at will the music and singing, the supper, and the glass of hot punch that followed.

The blessings of a headless monarchy appear at this juncture. It was a fortunate thing for England that the first of the Georges were dull-witted, unambitious rulers, spending much of their time in Hanover, keeping out of the way, and leaving their kingdom to take care of itself. Thus troubles were avoided; for sovereign and subject perfectly understood each other, the former being rather the servant than the monarch of the people over whom he ruled in name; but always well treated, well tipped, and with perfect liberty to come and go where and whensoever he pleased. With George III, however, it was different; he was a native of the country, proud of his nativity, and proposed to reign as a king and not as a puppet, though no more fitted to govern England than his predecessors, who never attempted to govern. Doubtless he did his best, this dull, obstinate, bigoted man, when he ascended the throne on which he should never have sat during this period that witnessed so many stirring events,—the decapitation or banishment of kings, the Napoleonic episode, and the loss of the American colonies, "the brightest jewel in the British crown."

He lived according to his lights; he practiced all the virtues that he knew, and he acquired all the knowledge that his slender wits would permit. "His household." says Thackeray, "was a model of a country gentleman's household. It was early; it was kindly; it was charitable; it was frugal; it was orderly; it must have been stupid to a degree which we shudder now to contemplate."

Had the throne of England been occupied by an abler monarch than George III; had an abler minister than North been at the head of the nation's affairs, it is by no means impossible, or even improbable that the United States would have been today one of the fairest portions of the British empire; or if they had separated, it would have been on friendly terms, and without shedding a drop of blood. But as resistance grew stronger in the colonies, so did the stubborn king become more determined that they must be forced into submission; and in this he had on his side the prejudices, but never the

intelligence of the community. Presently Burgoyne trips forth from his London club on St. James's street to conquer America, returning somewhat crestfallen after his defeat. Cornwallis, though at first victorious, fares no better in the end; for with the aid of a French fleet and a disciplined army under Lafayette, Washington makes short work of the British. Thus was confirmed the prophecy which Chatham uttered in the hall of Westminster; "You cannot, my lords, you cannot conquer America!" And not only were the colonies free; but England as a nation was glad that they were free.

In the reign of the fourth George, and of the fourth William, there is nothing that need here detain us; nor need we dwell on the events of Victoria's reign, which are doubtless familiar to the reader. Her long administration of well-nigh threescore years, longer than that of any former sovereign, has been in the main one of the most prosperous eras in the nations annals, though checkered by such episodes as the Indian mutiny, the Crimean war, and the ceaseless pettifogging wars in which England appears to delight. Seldom has been witnessed more able statesmanship than that of Sir Robert Peel, of Earl Russell, of Gladstone and Disraeli; Gladstone's financial measures especially tending toward increase of wealth, though of late the country has not been overburdened with prosperity. As to the queen herself, she has done all that the nation expected of her, all that her immediate predecessors have done, and all that her successors can do; that is to say she has done nothing. Though nominally holding the power of veto, it is never exercised; and except holding court, which could well be dispensed with, and affixing an occasional signature to acts of parliament and to public documents, it would be difficult to define the functions of royalty as it exists in England today.

It is a somewhat expensive operation, this signing of documents and keeping of court, from which the better class of British nobility holds aloof. First there are voted by parliament what are termed the queen's supplies,—£325,000 a year for her household expenses and £60,000 for her privy purse. The portion of the Prince of Wales is £40,000; of his wife £10,000, and of their children £60,000; to the dukes of Edinburgh and Connaught are granted £25,000 each; to the princesses Christian, Louise, Beatrice, and to the duchess, of Albany, each £6,000: and to the empress Friedrich of Prussia £8,000, all these being children of the queen. Then there are her cousins; of whom the duke of Cambridge receives £12,000; the duchess of Teck £5,000, and the duchess of Mecklenburg-Strelitz £3,000; other pensions amounting to £25,000, or nearly £600,000 in all, for maintaining the pageant of royalty. But even with this the royal family is not content, and seldom is a session of parliament held at which one or more of its members do not apply for an additional sum. During the session of 1896, for example, a further allowance of £1,800 a year was demanded for the duke of Cambridge, giving rise to much comment and discussion, as well indeed it might; for it was pitiful to see this aged and royal mendicant, whose fortune is far in the millions, attempting to smuggle a bill through the commons for a retiring pension as ex-commander-in-chief of the British army.

Against Queen Victoria, neither subjects nor foreigners have a word to say, whether as a queen or as a woman; for she has done the best that she could; but the days of monarchy are numbered, and the world is becoming tired of supporting royalty and royal families of sickly boys and silly girls, albeit the reigning family of England does not belong to this category.

Yet in that country sovereignty, prerogative, and church have long since given way to civil and religious freedom. While old-fashioned toryism is not entirely extinct, among the people at large, king worship and queen worship are as much among the things of the past as are the pillory and the mutilation of political offenders. Partly as a consequence of this freedom, and also as the result of

better morals and manners, servility to rulers is out of date; and though servile forms and ceremonies may still exist, no longer do men cringe and women compete for favor in a court where woman's shame was not accounted as dishonor.

If not yet ripe for self-government, there are several European nations which would appear to be on the eve of such a change; and none more so than Great Britain, where at times revolution seems imminent, and when it comes, will probably come as quietly as at the deposition or rather the flight of James II, without bloodshed or clash of arms. That it has not come sooner is due to the fact that there is little to be gained by it; for the yoke of royalty sits so lightly on the people that its touch is barely felt, and the change from monarchy to republicanism would be rather one of forms than of institutions. But in Europe there is much to be gained, as is shown in the wonderful prosperity of France, notwithstanding the payment of an enormous war indemnity and the loss of hundreds of millions sunk in the Panama Canal. Here perhaps may now be living, as yet unknown to fame, another Napoleon, who making war on monarchs, not for ambition but for his country's sake, and in the name of human freedom, may cause Europe again to resound with the crash of continental thrones. When the news of Napoleon's death reached England, it chanced that Hazlitt and Charles Lamb were conversing about the great general "whom both of us liked," says Hazlitt, "but for entirely different reasons; he for putting down the rabble of the people, and I for putting down the rabble of the kings."

Of ancient London and of the annals of London much that is of interest might here be said; but this I must pass over as briefly as possible; for it is rather with the modern city that we are now concerned. Long before the first of the Caesars set foot in Britain, a collection of huts in the midst of marsh or forest occupied the site of what is now the commercial metropolis of the world. In the time of Nero it had already become a considerable mart of traffic, visited by merchants from many lands, though never regarded as the capital of Roman Britain. There was a wall around it, and there were several gates, among them those afterward known as Ludgate, Billingsgate, Aldgate, Bishopsgate, Newgate, and others. At a somewhat later period it was a mile in length by half a mile in breadth, and at the close of the Roman occupation was the abode of culture and wealth.

With the departure of legions quickly disappeared all traces of Roman civilization; and says a chronicler of the age in his narrative recently published for the first time: "Where now was the wealth of this famous province? It was gone. Where was the trade of Augusta?"—the fifth century name for London. "That, too, was gone. Nothing was brought for export; the roads were closed; the river was closed; there was nothing in fact to send; nay there were no more households to buy the things we formerly sent them. They lived now by the shore and in the recesses of the forest, who once lived in great villas, lay on silken pillows, and drank the wine of Gaul and Spain." Yet a remnant was left, a remnant of the baser sort who, crawling out of the dens where they crouched in abject fear of Saxon freebooters, and finding no enemy in sight, bethought themselves that the entire city was theirs to plunder at will. Then they collected all the valuables which the people had been compelled to leave behind them,—"the sacred vessels from the churches and the rich embroidered robes of silk worn by the priests. They found soft stuffs in the villas with which they wrapped themselves; they found curtains, rich hangings, pillows, cushions, carpets—all of which they took. The carved work and statues, books, pictures, and things which they understood not they broke in pieces or burned."

About half a century later, it chanced that a band of east Saxons, in search of a suitable place for settlement, came in sight of the city, and though looking rather for a spot where they could grow their crops and keep their cattle, determined to capture it. As the gates were closed, they blew their horns and summoned the inhabitants to surrender. But no answer was returned; neither was arrow, stone, or other missile discharged d at the invaders. Then, battering in one of the gates, they entered, shouting their war-cry and brandishing their weapons. But soon they ceased to shout; for there were none to oppose them, and they found themselves in a deserted city.

Surrounded with spacious gardens overgrown with weeds were the walls of what had once been handsome villas, then crumbling into decay; they were roofless; the tessellated pavements of courtyards were broken into fragments, and the fountains choked with rubbish, while grass grew in streets where still the deep ruts worn by wagon wheels showed signs of traffic. Passing onward to the riverside, the Saxons found there a few thatched huts, in the midst of which fires were burning, and on the fires fish were frying in pans. The people had taken to flight when they heard the Saxon war-cry, and gathering such of their effects as they could carry, took refuge in the trackless forest which lay toward the north, where no enemy could follow.

Thus lay the city of London a city of the dead; but not for long; since the tide of war rolled westward, and pirate craft no longer hovered around the broad reaches of the Thames. The country was at peace; and presently a few traders ventured up the river, entering the port of which little but its memory remained. Thence they sent out men who displayed to the nearest settlers swords and spearheads, all of the finest workmanship, and offered in barter for hides and wool. These were probably the first commercial travelers; certainly the first of which any record has survived. With the revival of trade, the city began to revive: for there were many who preferred to live there rather than spend the long days toiling all alone on their farms, some, more nimble-witted than the rest, perceiving how they could live and accumulate wealth, not by their own labor but by exchanging the products of others' labor; that is to say by commerce. Then came more merchants and more workmen, the one class keeping the other poor; else there were no chance for the few to get rich. Such was the origin of modern London, which, when the first of its bishops took charge of his diocese at the opening of the seventh century, had again become a lively mart of trade, its quays well lined with shipping and its streets astir with traffic.

Toward the fortification and embellishment of London the Saxons did little, but the Normans contributed much; beginning with the Tower, originally built to overawe disaffected citizens, of whom there were not a few among its 40,000 inhabitants in the days of William the Conqueror. In the thirteenth and fourteenth centuries occurred many destructive fires, famines, and pestilences, costing the lives of thousands, while the rebellion of Wat Tyler and the outbreak of which Jack Cade was the leader were In the time of accompanied with burning and pillaging. Elizabeth the prosperity, as well as the patriotism of the people, was shown by liberal contributions in money, men and ships to resist the attack of the armada. In this, the golden age of England as some have termed it, the increase of trade was beyond all precedent; and especially in the capital, whose merchants the queen treated well; so that during her reign the commercial metropolis of the world was transferred from the city on the Scheldt to the city on the Thames.

This, however was due rather to the able management of Thomas Gresham, who as royal agent at Antwerp was not slow to turn to the advantage of London the heavy losses incurred by Antwerp

through the wars of the Netherlands. He it was who built the Royal exchange and the college which bears his name, who took charge of the queen's finances and negotiated her loans while scores of trading associations were founded about this period, of which only the Hudson's Bay company now exists.

Gresham had every advantage that birth, wealth, and education could bestow, beginning life as his uncle's apprentice, then being appointed a member of the Mercer's company, and after sojourning in the Low Countries, opening a shop on Lombard Street, in front of which was his family crest. In it were for sale gold and silver plate, chains, rings, jewelry, and lace, with coins both ancient and modern. He also conducted a banking business, loaning money at ten to twelve percent, then the current rate, purchasing bullion, and issuing letters of credit. His career was paralleled somewhat by that of Whittington; for both acted as the financial agents of the reigning sovereign, whose favor they enjoyed; both were mere mercers and merchant adventurers, and both kept shops of which they had too much good sense to be ashamed.

In 1664 began the great plague of London, which cost the lives of 100,000 people, and doubtless would have cost many more but for the fire which came two years later to purge and purify. Yet it was a somewhat expensive blessing, the destruction of property being estimated at £10,000,000, the greatest on record up to that time since the burning of Rome in the days of Nero. The buildings swept out of existence covered an area a mile and a half in length by a mile in width, and included 132,000 dwellings, 89 parish churches, and many public edifices, among which were St. Paul's cathedral and the Royal exchange. In the reign of Queen Anne, when the capital first began to assume its modern aspect, the storm of 1703 caused damage to the amount of £2,000,000, overthrowing or unroofing houses and driving vessels on the river shore. Finally there were the "no-popery "riots of 1780, when the mansions of the wealthy were plundered or burned, and nearly forty conflagrations were counted at one time in various districts.

Notwithstanding these disasters, the metropolis continued to grow and to prosper, many of the finest streets and structures dating from the latter half of the eighteenth century, to which period belong the bank of England, Somerset house, the Mansion house, and the Horse-guards.

In the nineteenth century were erected Buckingham palace, the houses of parliament, the new courts of law. London and Waterloo bridges, the British museum, the National gallery, the mint, the post office, the custom-house, with all the vast array of costly mansions and business blocks now included in Belgravia and the West end. In a word, both municipality and citizens have of late been constructing spacious thoroughfares and handsome buildings as if this were their sole object and occupation in life.

The present city of London occupies portions of four different counties, the northern section lying in Middlesex and Essex, and the southern and less important section, on the opposite side of the Thames, in Surrey and Kent. The city proper, though a county in itself, is of comparatively small extent, and built, as is much of the outer city, with little regard to plan, the streets, except those of recent construction, running in confused and intricate lines, faulty in connection and with insufficient means of communication, greatly to the impediment of traffic. Thus the finest architectural effects are marred through overcrowding, while some of the thoroughfares leading to the West end are narrow crooked and shabby, the Strand, so named from skirting the river bank, now covered with buildings, being one of the busiest and broadest arteries of trade. About midway in the Strand, and adjacent to

the new courts of justice completed in 1882 at a cost of £2,200,000 stood Temple bar, built in 1670 by Christopher Wren, and removed in 1878 as an obstruction which could be no longer tolerated.

Regent Street is the widest and most fashionable of London's public ways, the splendor of its shops offsetting the plainness and monotony of its architecture. It leads into Piccadilly, the eastern portion of which is filled with shops and the western, with clubs and mansions, in no way remarkable as buildings unless it be for incongruity of design. Yet this is a pleasant quarter, fronting on a spacious roadway and overlooking Green park and Trafalgar square, the latter with its fountains and statuary above which towers the Nelson column. Nearby and parallel with it is Pall Mall, so named from the game of pail mail—in Italian palla a and malleo a mallet—introduced into England in the days Charles I as the prototype of croquet. Here is in truth a street of modern palaces, mainly of Grecian or Italian style, for this is the very center of club and hotel life, though late in the seventeenth century merely a suburban promenade. Close at hand is Waterloo place, with its Crimean and other monuments; and in this neighborhood is the Haymarket, now of unsavory fame, but noted for its historic temple of the drama, and as the spot where Addison wrote for the few shillings a week that kept him from starvation. In the shops of Oxford street, of which Tottenham Court and Charing Cross roads are continuations is transacted an enormous volume of business, and here are many buildings of modern and tasteful pattern.

Such are a few of the more prominent thoroughfares in the heart of the West end; but as London streets are 3,000 miles in length, and nearly 8,000 in number, they cannot here be described in detail. More than 5,000,000 persons dwell in this huge metropolis, and there are 600,000 buildings, of which about 1,500 are churches and 7,800 are public houses, or saloons as they are termed in America. The annual increase of population is estimated at 70,000, or more than sufficient to people a city, as also is the pauper class, at least 110,000 in number. Of the industrial and commercial classes there are probably not far from 1,000,000; of domestic servants 350,000; and of the unoccupied, or those whose occupations cannot be classified, 1,500,000; for a large percentage of the men and perhaps one-half of the women belong to this category, either from choice or necessity.

Notwithstanding the enormous space covered by suburban villas and cottages, each year a new city is being added to that which already covers an area of 125 square miles. In the fashionable quarters the dwellings are not remarkable for taste or beauty of design; and close to some of them are the squalid thoroughfares tenanted by the working classes, though for the most part these are housed in the dreary and densely peopled districts east of the city proper. Parks and public squares are plentiful, those in the West end alone extending over 900 acres, almost in the heart of the capital, and adjacent to each other. The oldest is St. James's park, laid out as a pleasure ground by Charles II, and rearranged in the present century with skilful blending of water and foliage. In Green Park are rows of shade trees, and at the point where it borders on Piccadilly are flower-beds carefully tended, imparting to this neighborhood a bright and cheerful aspect. Hyde Park, the largest of the group, was originally a portion of the manor of Hyde, and belonged to the estates pertaining to Westminster abbey. On the abolition of monasteries and the seizure of their property by Henry VIII it passed into possession of the crown, and in 1652, though of much larger size than the Clifton bridge present enclosure, was sold for about £17,000. Repurchased soon afterward for public use, it soon became, as today it is, the favorite outdoor resort of beauty and fashion, and also of loungers of all nationalities and conditions. Among its attractions are fine expanses of lawn interspersed with shrubbery,

parterres of flowers, and the most stately of English oaks, while at the ornamental lake known as the Serpentine, bathing in summer and skating in winter are permitted at certain hours.

During what is known as the London season, its spacious avenues are crowded with handsome and costly equipages, the one known as Rotten row being set apart for equestrians. Of its nine principal gateways, the one known as Hyde Park corner, its arches adorned with reliefs in imitation of the Elgin marbles, was constructed in 1828 at a cost of £17,000; while on the Marble arch in front of Buckingham palace was expended £80,000. Completing the chain of the larger West end pleasure grounds are Kensington gardens, with their avenues of rare plants, shrubbery, and flowering trees, adjacent to which is Kensington palace, the birthplace of Queen Victoria, but though formerly a royal residence containing little worthy of note. Elsewhere are many open spaces, chief among which are Regent Park in the northwestern section of the city, and Greenwich Park in the suburb of that name.

The greater part of London, so far as contained in the city limits, has been virtually rebuilt within the last century, and its streets much altered and improved, the Metropolitan board now possessing a certain control as to the construction of new thoroughfares. The board is by no means sparing of expense, having paid for the building, widening, and other improvements of streets, within the last thirty years, more than £10,000,000, of which a large proportion has been returned through sales of property. Then there is the Thames embankment, with its wall of granite blocks supporting a beautiful thoroughfare and promenade. Its cost exceeded £3,000,000, the portion known as the Victoria embankment, between Westminster and Blackfriars bridge, including 37 acres of reclaimed land, used in part as ornamental grounds. In the Albert embankment, on the southern side of the river, are about nine acres, mainly occupied by the buildings of St. Thomas' hospital, costing £500,000, with an annual revenue of £40,000 and treating nearly 100,000 patients a year.

Of the twelve bridges which span the Thames, apart from railroad structures, the most easterly is the Tower bridge of steel and stone, opened in 1894 at a cost of more than £1,000,000. Including the approaches, it is half a mile in length, with a carriageway 30 feet and a foot way 140 feet above the high water level of the river, the central span being furnished with drawbridges for the passage of tall-masted vessels. Not far from it is London Bridge; and at this point begins the great line of shipping extending along miles of wharves and quays, yet so closely packed that we might almost step from one craft to another. London Bridge, though not as now it stands, is the oldest, and until 1769 was the only bridge in the metropolis. The ancient structure was completed nearly seven centuries ago, in the reign of King John, and upon it were erected rows of houses on either side, with a chapel dedicated to St. Thomas of Canterbury. The present bridge, 930 feet long and 54 in width, supported on five granite arches, and with lamp-posts made from the cannon captured in the Peninsular war, was finished in 1831 after an outlay of nearly £2,000,000. Yet it is now entirely insufficient for the requirements of a traffic which centers largely at this point, more than 17,000 vehicles and 120,000 pedestrians crossing it daily; so that in the busiest hours it is almost impassable. Blackfriars, the second bridge, was rebuilt for £320,000 in 1869, with iron arches resting on a granite foundation; and for Southwark bridge, also with iron arches and stone piers, the expense was £800,000. Westminster Bridge is a fine composition, and among others are Waterloo, Lambeth Vauxhall, and Charing Cross suspension bridges, the total cost of London bridges probably exceeding £9,000,000. There are also street bridges, as the one over Farringdon road, supported by iron columns, and on the parapet bronze statues of science, art, commerce, and agriculture. In this connection may be mentioned the Thames tunnel, on the construction of which were expended £450,000 and eighteen years of work. Opened

for traffic in 1843, it was afterward purchased the Great Eastern railway company. Several tunnels by are in contemplation in Europe and America.

Close to the Tower bridge and a little to the east of the ancient city walls, is the most interesting spot in England from an historic point of view; and that is the Tower of London. Founded, as I have said, by William the Conqueror, it was originally a royal palace as well as a stronghold, though better known to fame as the prison whence many a political offender was taken forth to execution on the neighboring Tower hill. Its present use is mainly as an arsenal, though still kept in repair as a fortress; while in different parts of the building are stationed the yeomen of the guard, or beef-eaters as they are commonly termed, this being a corruption of the French buffetiers or attendants at the buffet. There are four principal entrances; the Water gate, the Traitors' gate, the Iron Gate, and the Lions' Gate, the last so called because here a menagerie was formerly kept for the delectation of royalty. The white tower or keep, is the most, ancient portion, and this it was that William of Normandy built on a site before occupied by the fortifications erected by Alfred the Great. In the inner ward are a dozen towers, at one time serving as prisons; as the bell tower, where Queen Elizabeth when a princess was confined by her sister Mary; and the bloody tower, where, as is said, the sons of Edward IV were murdered by assassins in the pay of Richard III.

In the council chamber, the banqueting hall, and other apartments is a collection of old armor dating from the time of the ancient Britons, and including the weapons of many nations and periods, Greek, Roman, Etruscan, Persian, Chinese, Japanese, and African, though with special relation to England and her wars. In a series of equestrian and other figures is shown the war panoply of British warriors from the days of Edward I to the time of James II. There is the richly damascened armor worn by Henry VIII, and the costly suit which the emperor Maximilian of Germany presented to him on the eve of his marriage with Catharine of Arragon, the badges of Henry and his elderly spouse appearing frequently among the many ornaments inlaid with gold and silver. Queen Elizabeth is here, on bold charger mounted, and ready to do battle with the Spaniard. There is the suit worn by Charles I, and that which Henry, Prince of Wales, wore in 1612, heavily inlaid with gold; while among the most valuable contributions from foreign lands are a spearhead unearthed from the plain of Marathon, and a full suite of ancient Greek armor found in a tomb at Cumae.

But to the average visitor the most interesting chambers are those in Wakefield tower, where is the repository of the crown jewels and regalia valued at £3,000,000. First may be mentioned St. Edward's crown, the original of which, with other insignia of royalty, was sold after the execution of Charles I and replaced after the restoration, though still retaining its ancient name, the new crown being first used at the coronation of Charles II.

The crown made for Queen Victoria in 1838 is one of the finest specimens of the goldsmith's art, containing nearly 2,800 diamonds, and in front an uncut ruby, presented, as is said, by a Castilian noble to the Black Prince, and glistening on the helmet of Henry V at the battle of Agincourt. The crown which Prince Albert wore is of gold set with jewels, and that of the Prince of Wales is of pure gold. The Royal scepter and the scepter fashioned for Victoria are richly begemmed and bejeweled, as is the golden circlet set with brilliant and pearls, worn by the wife of James II. There are also royal bracelets, royal spurs, and royal vessels of various kinds, as the gold basin from which the queen's alms are distributed on Maundy Thursdays, the silver baptismal font of her children, and the silver wine fountain presented to Charles II by the corporation of Plymouth.

From the comparative solitude of Tower hill one may pass in a few minutes into the roar of traffic in Cheapside where, vehicles and pedestrians are so densely wedged together that hardly a glimpse of street or sidewalk can be had in business hours. It is lined with gaudy shops, and nearby some yet more somber repositories of wealth, yet all attractive, at least as to their contents; for here, almost from time immemorial, have been the headquarters of London jewelers and mercers. From its western end a lane in rear of the general post office leads to Goldsmith's hall, where are many curiosities and portraits of former celebrities; for the Goldsmiths' company was incorporated in 1327, since which time it has been the authority in everything pertaining to the craft, and still puts its stamp on most of the old and silver ware of English manufacture.

But on our way we have passed the wealthiest and most influential of all British institutions; and here we must linger a moment, for this is no other than the bank of England, "the old lady of Threadneedle street" as it is affectionately or sometimes derisively termed. Though enclosing a space of nearly four acres, the external walls are windowless; the building, which is of the plainest, being lighted from interior courts for the better security of its contents. For nearly a century and a half after it was founded, in 1694, by the Scotch financier William Paterson, it was the only joint-stock bank in the metropolis; the London and Westminster being the next, soon followed by a score of others. As the custodian of government funds and in part its financial agent, especially as to the management of the national debt, a royal charter, frequently altered and renewed, conferred on it certain privileges, among which was that of issuing notes, the circulation in 1895 amounting to some £27,000,000. Of coin and bullion about £25,000,000 is the average amount contained in its vaults while its business, exceeds £2,000,000 a day, and on its present capital of £14,553,000 are paid yearly dividends, usually of nine or ten percent. All the gold bullion offered is bought at an unvarying rate; but for silver bullion it has little use, silver being legal tender only for payments not exceeding two pounds sterling. Opposite the bank, in Capel court, is the stock exchange with nearly 3,500 members, and with daily transactions of fabulous amount. At the bankers clearing-house on Lombard street, a business of only £7,000,000,000 or £8,000,000,000 a year is considered as an indication of dull times and financial depression. In these three establishments is largely represented the wealth not only of Great Britain but of the world; for at the stock exchange are listed the securities of many foreign lands, and at the bank of England are held the reserves of many other banks, British, colonial, and European.

From Cheapside we pass into St Paul's churchyard where, on the site of a chapel founded by King Aethalbert in 610, stands one of the largest ecclesiastical structures in the world. Destroyed by fire in 1087, the church was replaced by a Norman edifice, 730 feet long, and large enough, as William of Malmesbury declared, "to contain the utmost conceivable multitude of worshipers." In 1561 its steeple, more than 500 feet above ground, was struck by lightning, and the building partially destroyed, its restoration under Inigo Jones being still in progress at the time of the great fire which swept London out of existence. As rebuilt from the designs of Christopher Wren, at a cost of £748,000, the cathedral is of cruciform shape, 500 by 250 feet, and with a dome whose surmounting cross is more than 400 feet above the pavement. In front of the main facade, or rather forming a portion of it is a double portico of Corinthian pillars; and at the transepts are semicircular rows, the tall campanile towers at two of the corners adding to the architectural effect. Of symmetrical proportions, and with massive simplicity of outline, it is an impressive rather than a pleasing composition, one dimmed with age, moreover, and with London smoke; while surrounded as it is with houses and shops, its colossal dimensions cannot be realized, except perhaps from Blackfriars Bridge

adjacent. The interior is imposing from its vastness, but dark and bare, except for a few embellishments in marble, mosaics, gilding, and stained glass. There are numerous statues and monuments, however, for here are the tombs of many whom England loves to honor; Nelson and Rodney, Wellington and the Napiers; Picton and Ponsonby, both of whom fell at Waterloo; Joshua Reynolds the painter, Hallam the historian, and dear old Samuel Johnson.

But Westminster abbey, with its long rows of monuments to the mighty dead, is regarded as the English temple of fame, and burial within its vaults, though not always worthily bestowed, is deemed as the greatest honor that the nation can bestow. Originally a chapel dedicated to St. Peter by King Siebert the Saxon, it was built on an islet overgrown with thorns, and thence termed Thorney isle. Connected with it was a Benedictine monasterium, or minster, west of the Cistercian abbey of St. Mary; and thus the name of Westminster.

Destroyed by the Danes, it was re-erected by King Edgar, and again by Edward the Confessor, appearing when completed in 1065 almost as large as now it stands. The present structure, begun by Henry III in 1220, was practically finished by Edward I, but with additions and improvements, so-called, down to the time of Henry VII, and even of Christopher Wren, by whom were built the two western towers. Its total length is 530 feet; the transepts are a little more than 200 feet in breadth; the nave and aisles having a width of 75 feet. It is in the form of a Latin cross, and for the most part of the early English style, but with traces of Norman and attempts at Gothic architecture. The interior is striking in effect, with symmetry of proportion and richness of coloring, especially in the triforium and the marble columns, though marred here and there by modern restorations and monuments in execrable taste.

The choir, with its fourteenth century decorations, where are held the coronation ceremonies of British sovereigns, is perhaps the most beautiful portion. In the north transept are the statues and busts of statesmen, warriors, and other famous men, as of the earl of Chatham, the younger Pitt, Fox, Palmerston, Beaconsfield, Warren Hastings, Richard Cobden, Isaac Newton, Lyell, and Darwin. In the aisles and chapels, that of Henry VII being remarkable for its fretted vault and beautiful tracery, are the monuments of kings and queens, of patriots travelers and men of science. In the south transept is the poet's corner, where are the memorials of famous writers from Chaucer to Charles Dickens, a prominent place being given to Shakespeare, whose figure stands on an altar-like pedestal, the right arm leaning on the volumes that contain his works, from which is selected, by way of epitaph, his own immortal words:

We are such stuff as dreams are made of,
And our little life is rounded with a sleep.

In connection with Westminster abbey may be mentioned the school of that name, one of the most ancient of London’s educational institutions, the old abbey dormitory serving as the principal schoolroom, while the dining-room tables were made, as is said, from the timbers of Spanish vessels of Philip’s unfortunate armada.

The new palace of Westminster, built from Barry's designs for the houses of parliament, and forming with Westminster hall a single group, was begun in 1840 and completed in 1867 at a cost of £3,000,000, the site being that of a former palace destroyed by fire in 1835. It is of the later Gothic style, covering an area of nearly six acres, and of imposing aspect, especially the facade that fronts on

the river, 940 feet long and with rich and tasteful decorative scheme. The central hall, entered from St. Stephens porch and surmounted by a dome and lofty spire, separates the house of lords from the house of commons; at the northeast corner is a campanile tower resembling that of the cathedral of Bruges, and above the royal entrance is a the Victoria tower, 340 feet in height. Though perhaps the finest and certainly the most elaborate of London edifices it has serious, structural defects while, the stone-work gradually crumbling away, the level is so low that its basement is beneath the high-water mark of the Thames.

There are 100 stairways and 1,100 apartments in the various buildings, all the rooms being handsomely furnished and equipped, some in magnificent style and at lavish expense. Ascending the principal staircase, we pass through a Norman porch, to the right of which is the queen's robing room, richly adorned with carvings and paintings of allegorical subjects, and of Arthurian and other legends.

Adjoining it is the Victoria gallery, with pavement of mosaic work, paneled and gilded ceiling, and on the sides frescos by Maclise representing the death of Nelson and the meeting of Wellington and Blucher at the close of Waterloo. It is from this gallery that queen proceeds, or rather used to proceed, to the house of peers, when about to prorogue or open parliament.

The chamber of the peers is oblong in shape, walls and ceiling finely decorated, its stained-glass windows covered with portraits of English monarchs, and floor almost filled with the red leather benches provided for the members. At the southern end of the chamber, beneath a gilded canopy and flanked by gilt candelabra, is the royal throne of England, with those of the late prince consort and the Prince of Wales on either side. The canopy is in three compartments, the central portion beautifully paneled, with lions passant carved and gilded on a crimson ground, and above them the royal arms and the motto "Dieu et Mon Droit" on a band of deep blue. At some distance in front is the woolsack of the lord-chancellor, resembling a cushioned ottoman, and at the end opposite the throne is the bar, where messages are received from the commons. Adjacent are the peers' lobby and corridor, leading into the central hall, with stone vaulting inlaid with Venetian mosaics, representing the heraldic emblems of the crown, and whence a second corridor and lobby lead into the house of commons, a spacious chamber fitted and furnished in substantial business-like fashion.

Westminster hall, forming the vestibule of the houses of parliament, is a portion of the palace founded by William Rufus, and enlarged and occupied by Saxon kings and their successors until the days of Henry VIII. It is nearly 300 feet in length and more than 90 in height, its ceiling unsupported by columns, and its carved oaken roof a masterpiece of constructive skill. Here were held some of the first of English parliaments, and later the festivals which followed the coronation of English monarchs. In other respects it is rich in historic interest; for here it was that Charles I was condemned to death and that Cromwell was saluted as lord-protector, while William Wallace, Thomas More, Strafford, Warren Hastings, and others were arraigned for trial at its bar. In the old palace yard is an equestrian statue of Richard the Lion-hearted in the new palace yard are bronze statues of Palmerston, Derby, Peel, and Canning; and in Parliament square is one of Beaconsfield attired in the robes of the garter.

Of the once famous abode of royalty known as Whitehall palace, almost destroyed by fire near the close of the seventeenth century, only the banqueting chamber now remains. The original building, with its valuable contents, was presented by Hubert de Burgh to the Dominican brotherhood, by whom it was sold to the archbishop of York, and thenceforth, until the downfall of Wolsey, became the

residence of the archbishops of York, under the name of York palace. But, says Shakespeare in his Henry VIII:

Since the cardinal fell, that title's lost;
'Tis now the king's, and called—Whitehall.

The banqueting hall, through which Charles I passed to execution, and where Charles II held his profligate court, is a spacious and lofty apartment, its ceiling adorned with allegorical and other paintings by Rubens. Converted into a chapel by George I in 1694, it became the headquarters of the United Service museum, in which is an interesting collection relating to the military and naval professions, including a model of Waterloo representing nearly 200,000 figures. After the destruction of Whitehall, St James's palace became the royal residence, until in 1809 it suffered a similar fate, except its gateway, its chapel, and its presence chamber, in which are many valuable portraits and other works of art. Though no longer held here, it is from this palace that the British court is still known as the Court of St. James's.

Buckingham palace, on the western extremity of St James's park, is the town residence of Queen Victoria. Built by John Sheffield, duke of Buckingham, it was purchased and occasionally occupied by George III; but though remodeled by Nash during the reign of his successor, remained for the most part tenantless until selected as the mansion of the present sovereign in the year of her coronation. A wing 460 feet in length, a large ball-room, and other apartments were later added, the entire group forming a quadrangle by no means remarkable for beauty of design. The sculpture and picture galleries, the former entered through a portico of marble columns, are the most attractive features, containing a fine collection by Dutch and other masters, as Rembrandt, Teniers, Rubens, Van Dyck, Jan Steen, Paul Potter, and Van Ruysdael. In the dining-room are portraits of English sovereigns, some of them by Gainsborough, and in an adjoining chamber are Cimabue's 'Madonna' and Leightons 'Procession in Florence.'

The ball and concert rooms, reached from a marble stairway embellished with Townsend's frescos, are handsome apartments, their walls bordered with seats draped in satin. Beyond is the throne-room, where the queen receives her guests in state, a magnificent chamber upholstered in gilding and red striped velvet, its marble frieze, beneath a vaulted and richly decorated ceiling, adorned with reliefs whose subject is the wars of the Roses. The green drawing-room is another famous apartment; in the garden is a summer-house with frescos by Landseer, Eastlake, Maclise, and others, representing scenes from Milton's Comus; nor should we forget the royal mews; that is to say the stable and coach-houses with accommodation for forty equipages, the state carriage, built in 1762, costing nearly £8,000. The queen is by no means extravagant in her entertainments, the cost of state concerts never exceeding £3,000, and of state balls £2,000, or less than would suffice for the purchase of flowers if given by a New York millionaire.

The queen has other mansions, among which is Windsor castle, some twenty miles from London and but a short distance, from Eton college, the most famous of English schools, and for centuries a favorite institution among the wealthy and titled classes.

Founded by William the Conqueror, on a hill which centers amid an estate originally belonging to Edward the Confessor, the castle, after being several times extended, was rebuilt by William of Wyckham, and after further extensions and restorations, was completed in the reign of Victoria at a

cost of £900,000. From the terraces which surround it broad flights of steps lead to a tasteful flower garden embellished with statuary, and from the battlements of Lincoln cathedral the Round tower, or keep, near the Norman gate, is an excellent view of the broad reaches of the Thames, and of a landscape embracing some of the fairest of English scenery.

In the audience chamber, the presence chamber, the throne-room and grand reception room are many valuable paintings and tapestries, the last being decorated in rococo style and containing malachite and other vases presented by European monarchs. In the guard chamber, above whose mantelpiece is a silver shield inlaid with gold presented by Francis I to Henry VIII, there are suits of old armor with busts and relics of famous generals and admirals; the Waterloo chamber, which is also the grand dining-room, being adorned, as are most of the apartments with portraits, statues, and other works of art. In the private rooms is one of the finest collections extant of gold and silver plate, of oriental and Sevres chinaware, of mediaeval cabinets, of bibliographical treasures, and of drawings and miniatures by Raphael, Michael Angelo, Holbein, and Leonardo da Vinci. In St. George's chapel, a fifteenth century structure with fan-shaped vaulted roof, near the gateway of Henry VIII, are some beautiful effects in carving, sculpture, and stained-glass windows. Adjoining it is the Albert chapel, formerly belonging to Wolsey, and restored by the queen in honor of the late prince consort, its interior embellished with colored marbles, mosaics, gildings, and precious stones in rich and varied profusion; for the queen loves the memory of her husband more than all the world beside.

Osborne house in the Isle of Wight is another of Victoria's residences; and still another, and best beloved of all, is Balmoral castle, on the bank of Dee, of which mention will be made in connection with Scottish annals. Marlborough house, erected for the first duke of Marlborough from the designs of Christopher Wren, was occupied in 1863 as the city residence of the prince of Wales, of whose country seat at Sandringham hall I have spoken elsewhere in this work.

Adjacent to St Thomas' hospital, on the southern bank of Thames, is Lambeth palace, for more than six centuries the residence of the archbishops of Canterbury. Its oldest portion is the chapel erected by Archbishop Boniface in 1245, the screen and windows being contributions from Archbishop Laud, while the Lollards' tower adjoining is so called because these disciples of Wycliffe were imprisoned and tortured in its keep. Here also were confined the poet Lovelace, Thomas Armstrong, and Queen Elizabeth's favorite the earl of Essex. Among the art treasures of the palace are portraits of all the archbishops of Canterbury since 1533, and in its library, established by Archbishop Bancroft in 1610, are 35,000 volumes and more than 2,000 manuscripts, including some of the most valuable of ecclesiastical documents.

To the British museum, with its various galleries of antiquities, it is impossible here to make other than brief reference. Of its origin, through the purchase in 1753 of the Sloane collection of books and manuscripts, I have already spoken. In 1896 the library contained over 1,750,000 volumes and 60,000 manuscripts, with a yearly increment of 10,000 to 12,000 works. It consists in truth of many libraries, some preserved in separate compartments, and some absorbed among the general in-gathering. While far from complete, even as to English literature, it is without a rival in catholicity of scope and contains a large number of rarities. In the United States there are few that can compare with it in the productions of American authors; it has the best Dutch library outside of Holland, the best Hungarian library outside of Hungary, and the best Slavonic library apart from the Imperial collection at St. Petersburg, while in the Hebrew, Chinese, and other oriental languages there are

more than 50,000 volumes. The manuscripts date from the second century before Christ, and include the famous Alexandrian collection, the chronicles of Anglo-Saxon kings, and the written legends of the Arthurian romance. There are marvels of gold-letter and illuminated works, among them Archbishop Bede's copy of the book of Durham and the celebrated Bedford missal, with Sanskrit, Hebrew, Syriac, Arabian, and other oriental documents, to say nothing of royal charters and genealogical pedigrees.

In the bronze and vase rooms of the museum are some of the rarest of classic and mediaeval treasures including Roman vessels of silver and a silver ministerium or service of third century workmanship. In the medal and gold ornament chambers are gold and silver coins from 700 BC to the time of the Roman empire, arranged in chronological order, besides in many others of later date, with golden ornaments, cameos, and gems of priceless value. Then there is the famous Portland or Barberini vase of dark blue glass, beautifully decorated with reliefs, unearthed from a Roman tomb early in the seventeenth century, and becoming the property of Prince Barberini before it was purchased by the duke of Portland.

The National gallery, the largest of the buildings fronting on Trafalgar square, was erected some threescore years ago on the site of a royal stable at a cost of £95,000, but with recent alterations and enlargements costing as much more. Of its contents, the nucleus was formed through the purchase by parliament, in 1824, of the Angerstein collection; and to this many additions have been made, both by purchase and bequest. While all the principal schools are well represented in its twenty-two departments, it is especially strong in the works of English masters, an entire chamber being devoted to the canvases of Turner, one of the greatest of landscape painters. Of many private collections, perhaps the most famous are those in the mansions of the duke of Westminster and the earl of Ellesmere. The Royal academy of fine arts, founded in 1768, and whose present quarters are at Burlington house, one of the finest specimens of the Italian renaissance, holds annual exhibitions, together with classes for instruction. In the Grosvenor gallery, by the society of painters in water colors, and by the society of British artists, exhibitions are also held. The South Kensington museum contains one of the finest art collections in the world both as to value and extent. It has also a department of applied or decorative art, with training tomb of grace darling schools, a collection of 250,000 drawings, engravings, and photographs, and large libraries pertaining to the various branches taught or illustrated in its several divisions.

In conclusion, let us turn for a moment to the drama, of whose growth and development a brief glance may be of interest. In the twelfth century, says William Fitzstephen, a Canterbury monk and mediaeval historian, London, "instead of shows upon theaters and comical pastimes, had holy plays and representations of miracles." In 1409 a play lasting eight days was acted, having for its subject "all matter from the creation of the world," and it was not until late in this century that the sacred began to give way to the secular drama. In the days of Shakespeare, who wrote divinely but played indifferently, his own ghost in Hamlet being the best of his parts, there were several theaters, chief among which were the Blackfriars and the Globe. Drury Lane was built somewhat later, and was burned in 1672, at which time there was in Dorset gardens a theater designed by Christopher Wren, which Dryden describes as "like Nero's palace shining all with gold." This, however, is mere poetic license, except perhaps as to a little gilding; for the entire cost did not exceed £8,000. It was here that opera was first given in London, in 1673, the Haymarket, Covent Garden, and Her Majesty’s being its later homes.

In 1897 the metropolis contained more than 30 respectable theaters and a large number of music halls, most of which may be classed as respectable, except as to the exposure of the female form, which has now gone so far that it cannot well go further; for indecent exposure here is at once suppressed by the Lord chamberlain, though not as yet at fashionable theaters, balls, and dinner parties. London pavilion is one of the best; and the Albert hall, used also for other purposes, is the largest of the better class, altogether too large for its acoustic properties, and with other faults that impair the effect of orchestral and choral performances. The same remark applies to the Crystal and Alexandra palaces, the former having at times a seated audience of 25,000 persons. Constructed at a cost of £1,500,000, chiefly of the glass and iron contained in the Exhibition building of 1851, it is beautifully situated in the suburb of Sydenham, on an elevated site of 200 acres laid out in the finest style of landscape art. The Alexandra palace has similar advantages, and in both are scientific and art collections, all of which with many other attractions, including a pleasant trip by rail, are offered to the public at a nominal fee.

Such are a few among the sights of London, a few only of the countless forms in which wealth is embodied or contained, its suburbs and suburban towns alone, such as Greenwich, Richmond, Kew, and Hampton court, with its stately palace and handsome grounds, containing more wealth than many cities that are accounted rich. In no city in the world is there so much opulence, and in none is there so much poverty, the income of the various charitable institutions amounting to nearly £5,000,000 a year, while large amounts are distributed in parish relief. As to the aggregate value of property no reliable estimate can be formed; but it is far in the thousands of millions; for except in occasional seasons of adversity, commerce has been gradually swelling the total ever since the Roman occupation, when Bede spoke of the city as already "the mart of many nations resorting to it by sea and land." Enjoying as it does a virtual monopoly of the trade of China and the East Indies, the imports of the metropolis are far in excess of exports, 250,000,000 pounds of tea, for instance, being taken each twelvemonth for consumption and distribution, while of cereals, wool, tobacco wines, and liquors, coffee, cocoa, sugar, and other commodities the receipts are on an enormous scale. Of the entire imports and exports of the United Kingdom, averaging about £700,000,000 a year, nearly one-third pass through the port of London, while the tonnage of vessels entering and clearing is not short of 14,000,000, and there are more than 2,000 acres of docks. Manufactures are on a considerable scale, among the leading industries being foundries and engineering works, tanneries, pottery and glass-works, chemical and paper-works; but breweries lead all the rest, the establishment of Barclay Perkins and company, belonging at one time to Thrale, the friend of Samuel Johnson, covering an area of thirteen acres.

Metropolitan society, like the metropolis itself, is on a huge and unwieldy scale, including a vast number and variety of cliques and sets, with a few real social leaders and with innumerable pretenders. As to the forces which sway these social organizations, the most powerful among them is wealth, London, in common with New York and other American cities, being now under the domination of a plutocracy rather than of an aristocracy.

Of this plutocracy one of the strongest elements is the Hebraic; for the Hebrews not only form the richest class, but are regarded with special favor by the prince of Wales, who is at the head of the social system. The Rothschilds, of whom mention has before been made, are no less puissant as social than as financial potentates. The brothers entertain freely and in magnificent style, especially Alfred, the second as to age, the heir apparent being one of his familiar guests. All are liberal patrons of

literature and art, giving freely of their abundance toward the support of public institutions, and also to the cause of charity. Many are those who are indebted to the Rothschilds for their fortunes, and none who have placed their trust in them ever found just cause for reproach.

The duke of Westminster is one of the richest men in England, and one of the richest in the world, with a fortune estimated at $175,000,000, and an income of $5,000,000 a year. His wealth consists, moreover, of that most stable of all investments,—real estate; mainly in the city of London, where he is known as the landlord of the West end, owning more than a thousand stately mansions and a number of the most valuable business blocks in this fashionable quarter of the world's greatest metropolis. His own mansion, Eaton hall, is itself a group of palatial edifices, more costly and magnificent than those which belong to the queen, and containing many treasures of art and articles of virtue. Among his possessions are 125,000 acres of forest and moorland in Scotland, where he passes much of his time in hunting; for though well stricken in years, he is one of the keenest of sportsmen. He has also the finest stable and stud farms in Great Britain, his horses being several times winners of the Derby, the most highly prized of all the honors of the turf. For admission to his art gallery the duke charges a small fee, devoting the proceeds to charity; and in this connection the following story is told; true, no doubt, though somewhat commonplace, similar incidents having been applied to many other important personages. A visitor entering the grounds not long ago, met there an elderly man attired in a plain tweed shooting-jacket and other garments to match. He asked to be shown through the mansion, or such portions of it as was permitted, and to this the other readily agreed, conducting him through the various buildings and showing him all that was best worth seeing. So obliging was the guide that he received half a crown for his services, and this he slipped into his pocket without saying a word. A few days later the visitor learned that his cicerone was the duke of Westminster.

Among other wealthy noble men is the duke of Fife, who, though a Scotchman, spends much of his time in London. In addition to his revenues from 300,000 acres of land, a large slice from the small isles of Brit he has a large income from banks in which he is partner, and railways and industrial enterprises in which he is a director. His investments are usually fortunate, some founders' shares, for example, purchased not many years ago for £30 selling as is related for £40,000. Yet his wife, the princess Louise, who may become queen of Great Britain and empress of India. makes her own press dresses and hats, and like her mother, the princess of Wales, is in manners and habits one of the most simple and unaffected of women.

To the south of London are the most ancient and attractive of English country towns, while to the north are the most wealthy and populous, especially those in the manufacturing districts. To the former class belongs Canterbury, a quaint little city with less than 25,000 inhabitants, but since the days of Becket the ecclesiastical capital of England, its archbishop being not only primate but metropolitan of all the dioceses south of the Trent. The cathedral stands on the site of the Roman chapel which King Aethelbert presented, together with his own palace, to St. Augustine and his missionary band. Augustine himself being the first of its dignitaries and Archibald Tait, the present archbishop, the ninety-third in succession. The choir was rebuilt by Anselm and restored and enlarged after the fire of 1172, virtually as it stands today. It is 180 feet long, the screen which separates it from the nave, flanked by grand Norman arches supported on massive piers, being of fifteenth century workmanship. The nave and transepts are similar in style, well lighted and of comparatively modern design. It was in the northwestern transept that Becket was murdered, the spot

still showing the mark of the altar erected in commemoration of the tragedy. At the eastern end of the choir aisles and approached by flights of steps is Trinity chapel, where was the shrine of the martyred prelate, so richly decorated that, as Erasmus declares, "gold was the meanest thing about it." Destroyed by order of Henry V III, and its treasures confiscated, no trace of it now remains, except upon the surrounding pavement worn by the knees of many pilgrims. Among the monuments of this chapel are those of Henry IV and Edward the Black prince, above whose brazen effigy are his gauntlets shield and helmet.

Of Gravesend, Chatham, Rochester, and other towns near the mouth of Thames, I need not stop to speak, though Rochester is an Episcopal city, its cathedral as well as the remnants of its castle being of ancient Norman architecture. To the southeast of it lies the port of Dover, also with its ancient castle, now converted into a fort, opposite the western heights which culminate in Shakespeare's cliff. Of old Dover, the Dubris of the Romans, little now remains; but of the Norman period there is much to remind us, especially in the church beneath Castle hill. Its harbor has several basins, used chiefly by the mail steamers which ply across the channel, and the admiralty pier is a massive structure extending of a mile into the strait. There are several rows of neat and commodious residences, especially in the visitors quarter; for Dover is a popular, if not a fashionable watering-place.

The southern and southeastern shores of England are skirted with watering-places, beginning with Margate, almost on the estuary of the Thames, and thence westward to the Cornish coast. Chief among them are Ramsgate, Hastings, Brighton, Worthing, and Bournemouth, and on the Isle of Wight the town of Cowes, whose port is the headquarters of the royal yacht squadron. On the eastern coast Scarborough and Whitby are the favorite resorts, and on the west there are Blackpool Llandudno, and Aberystwyth. All have their attractions; though Brighton and Scarborough are most in favor, both having excellent drives, promenades, and piers, in sight of which are the boldest of cliffs, and the finest of marine landscapes, while their hotels, shops, and theaters are among the best outside of the metropolis. Some forty miles south of Scarborough is Hull or, Kingston-upon-Hull, the principal seaport of the eastern coast, and with a commerce surpassed only by that of London and Liverpool.

Plymouth and Southampton are the chief commercial and shipping ports on the southern coast. The former is picturesquely situated on the sound of that name, its harbor protected by one of the finest breakwaters in the world and spacious enough to afford anchorage for the entire British navy. It was here that the English fleet awaited the approach of the armada, the town itself furnishing seven of the ships. There are several handsome thoroughfares lined with imposing business blocks; the public buildings are neat and substantial, and the residence quarters suggestive of wealth and comfort. Southampton has many beautiful villas and mansions, though in its ancient quarter is much of the antique, with narrow, tortuous streets, beyond which are remnants of the wall erected in the days of Richard II. The docks are extensive; for here are the headquarters of many steamship lines, more than 20,000 steam and sailing vessels entering or clearing yearly from this port. A few miles distant is Portsmouth, the chief naval station of England, with its huge government dockyard, begun by Henry VII, and now covering nearly 300 acres, the total cost exceeding £5,000,000, though largely constructed with convict labor.

Liverpool next to London is the largest of English seaports, the aggregate tonnage of its shipping exceeding 10,000,000 a year, while in volume of exports it far surpasses the metropolis. Its docks

extend for many miles on either side of the Mersey, and year by year are being still further extended to meet the increasing demands of commerce. Their revenues are about £1,500,000 a year, sufficient, after meeting expenses, to pay interest on £18,000,000 of outstanding debt, which is but a portion of their cost. The Alexandra dock is the largest, with a water area of 45 acres and it is here that most of the transatlantic steamers find accommodation. In common with the Waterloo dock, it is largely used by grain-laden vessels, and in the neighborhood of both are huge storehouses for grain. The landing stage for steamships consists of an enormous floating quay, more than 2,000 feet in length, and connected with the shore by several bridges. Liverpool is not an attractive city, but it is an extremely busy one; its corn exchange largely regulating the price of grain throughout the world. The town-hall, costing £410,000, and the new exchange are among the finest of the public buildings; but the architectural feature of the city is St. George's hall, with its polished granite columns, its marble pavements, and its porticos of Corinthian pillars 60 feet in height. Bristol once ranked next to London as a seaport, and is still fourth on the list as to receipt of customs revenues. It is an ancient and interesting city, famous for its ecclesiastical architecture, though many of the finest specimens have been destroyed. Connecting it with its sightly suburb of Clifton is the famous suspension bridge erected by Brunel, with a span of 700 feet and a roadway 250 feet above high-water mark.

Proceeding eastward from Liverpool, and a little toward the north and south, we come to such manufacturing towns as Manchester. Oldham, and Preston; Leeds, Bradford, and Huddersfield; Sheffield and a score of others.

To some brief reference has already been made; and as to the rest it need only be said that, except as wealth-producing centers, there is nothing about them of interest, tall chimneys vomiting forth the clouds of smoke which settle like a pall in the surrounding atmosphere, making them the dreariest and dirtiest among the abodes of man. Much cleaner are such manufacturing towns as Nottingham and Coventry, the former noted for its hosiery, as the place where Arkwright fashioned the first spinning frame, and to which Hargreaves removed with his spinning jenny after being driven by a mob from Blackburn. Ribbons and watch making are the chief industries of Coventry, so named from the Benedictine convent founded in 1043 by Earl Leofric and his wife, the lady Godiva, the latter celebrated in Tennyson's poem as riding through the city streets "clothed on with chastity." It is a city of churches, the oldest of which, St. Michaels, with a steeple more than 300 feet high, is among the finest specimens of architecture on perpendicular lines.

In addition to those already mentioned, there are several cathedral towns in England, one of the oldest of which is York, the Eboracum of the Roman period, its ancient walls still partially surrounding the narrow, crooked streets, overhung here and there with the quaint old-fashioned houses of mediaeval days. Its minster or cathedral, originally a small wooden chapel built by the first archbishop of York in 627, is a noble specimen of church architecture. Especially fine is the effect of the western front, its sections corresponding with the nave and aisles, and above the entrance a large window whose foliated tracery is one of the most beautiful specimens of fourteenth century workmanship. The transepts and crypt, belonging to the Glasgow university twelfth and thirteenth centuries, are the oldest portion of the building, and the main transept is considered as the gem of this stately composition, though in the south transept with its rich rose window, is more elaboration of detail. St. Mary's abbey, or that which remains of it is also a structure, of historic interest, its hospitium being used as a museum of antiquities. There are many time-honored churches, and among secular buildings the guild-hall, the mansion-house, and the assembly rooms are the most

remarkable. Of the castle, now used as a prison, the oldest portion is Clifford's tower, formerly the donjon of the Norman fortress erected by William the Conqueror.

Of Durham cathedral, its ancient Norman church still forms the principal portion; and though there have been many additions, the interior, with its massive pillars and arches, is almost perfect in its magnificent proportions and decorative features. Its dimensions are almost the same as those of York minster, —510 feet in length by 200 in breadth, and with a central tower 215 feet in height. In the Galilee chapel, completed in 1195, the remains of Bede lie at rest; and in the chapel of the Nine Altars are those of St. Cuthbert. The see of Durham was formerly the richest in England, its revenues amounting to £37,000 a year; but in 1836 the income of the prelate was reduced to £8,000 and the surplus applied toward increasing the stipends of poorer bishops. Durham castle, with its great hall constructed by Bishop Hatfield, its Norman hall, chapels, and other apartments, is now the headquarters of a university which ranks among the foremost of England's educational institutions.

Of all English cities Chester is the only one that retains its ancient walls in their entirety, though with gateways rebuilt toward the close of the eighteenth century. It is a quaint little town, the four principal streets radiating at right angles from the market cross and terminating at the gates.

They are flanked by what are termed "rows," serving as sidewalks but boarded or flagged and ceiled thus forming a covered way, behind which are houses and shops with overhanging roofs. The origin of these rows is still in controversy; but the effect is unique, and in conjunction with the old-fashioned buildings, strikingly picturesque. The cathedral, formerly the abbey church of St. Werburgh, dating from the early Saxon period, is of composite architecture, the choir with its rich marble flooring, its beautifully carved stalls, and its altar of cedar and olive from the groves of Palestine forming its most attractive feature.

Lincoln cathedral, it is said, was the earliest, building in Europe of purely Gothic design, and though now combining many varieties of style, is not surpassed even by York minster in grandeur of effect and elegance of detail.

Its symmetry of proportion shows to the best advantage, crowning as it does the hill on which the city is built; its central tower, 260 feet high and supported by lofty arches with massive stone piers, giving accentuation to the plan. In the interior the presbytery and the choir stalls with their antique carvings are among the finest specimens of human workmanship, and though most of the stained-glass windows are modern and in doubtful taste, there are some which are beautifully decorated, especially the one in the east transept, and that which is known as "the Bishop's eye." Apart from its cathedral Lincoln has much of historic interest; for here on the site of its minster and of a castle erected by William the Conqueror, stood, at least as early as 100 AD, the Roman settlement which Bede calls Lindocolina. It was in this castle that Matilda was besieged by King Stephen, that the first of the Plantagenets was crowned, and that David I of Scotland did homage to King John. Though a small city, it has many costly residences and public buildings, while from time immemorial it has been a parliamentary borough.

Of Worcester, as of Lincoln, the cathedral is its pride and glory, the see of the former being established in 780, after which date the bishop's church of St. Peter's was absorbed in the monastery of St. Mary, the canons turning monks, and thus was later established a monastic cathedral. Bishop Wulfstan, the only Saxon prelate whom the Norman conquerors left in possession of his diocese,

erected here a church, of which portions are embodied in the present building; and after his canonization the rich offerings at his shrine permitted its conversion into a cathedral, the lady chapel being a later addition, as are the chapter-house and the refectory, now used as a Grammar school, the entire structure being remodeled about the middle of the present century at a cost of £100,000. The choir is exceedingly beautiful; its slender marble shafts with capitals most delicately carved, and contrasting somewhat with the profusely decorated screen. Among the monuments is that of Bishop Gauden, the real author of the Icon Basilike, wrongly attributed to Charles I, while the sepulchral effigy of King John is probably the earliest of its kind. Across College green, near which stood Worcester castle, are the remains of the Guesten hail, formerly a portion of the Benedictine priory once connected with the cathedral.

Other cathedrals might here be mentioned, as those of Exeter and Winchester with their beautiful choirs and altar screens. Ely and Wells, the former one of the largest in England, Lichfield and Peterborough, both rich in historic associations, Salisbury with its spacious transept, and Gloucester with its elaborate ornamentation; but sufficient has been said to indicate the general character of church architecture and decoration as it exists in England in its highest forms. Finally, some reference is needed to the university towns of Oxford and Cambridge, which as seats of learning rank above all others in the British isles, except Trinity college, Dublin, though not requiring detailed description.

While the seat of a wealthy diocese, and famed through many historic associations, Oxford, that is to say "the ford for oxen," as appears from its eleventh century name of Oxenford, is noted mainly for its colleges, on which the town largely depends for the support of its 55,000 inhabitants. It is a beautiful city, surrounded by an amphitheater of hills, stately towers, and spires rising from ancient quadrangles, from cloistered gardens, and from groves of oak more ancient than the mediaeval buildings around which they are clustered. In connection with the university may first be mentioned the Bodleian library, founded in 1602 by Thomas Bodley, and now containing about 500,000 volumes and 35,000 manuscripts, including the finest collection extant of oriental documents, and of the earliest editions of the Greek and Latin classics. It has also the right to receive a copy of every book that is published in the United Kingdom; these are housed in the Radcliffe library, founded by a physician of that name who, dying in 1714, bequeathed for that purpose £40,000, together with an income for its support.

The University of Oxford contains 21 colleges, nearly 100 professors or lecturers, several hundred fellows and tutors, and about 3,000 students. It is the largest and wealthiest educational institution in England, bequests and endowments accumulating for several centuries and affording a princely revenue, largely distributed in scholarships and fellowships varying in value from a nominal sum to as much as £1,000 a year. He who secures a fellowship retains it as a rule for life or so long as he remains unmarried; for the supposition is that one who can support a wife should first be able to support himself; moreover, except as occasional visitors, women are regarded as a drawback to serious study and otherwise out of place. University, Balliol, Oriel, Exeter, and Queen's are the oldest of Oxford colleges, and Christ's, founded by Cardinal Wolsey in 1524, is one of the largest and most fashionable. The cathedral of the diocese serves as its chapel, and though the smallest in England is one of the most ornate, its choir, stalls, and Episcopal throne being of elaborate workmanship, while its windows by Burne Jones are among the finest of his compositions. Brasenose, whose name is derived from a door-knocker belonging to an older institution, though itself founded in 1509, is noted

rather for its athletes and boating-men than for its students furnishing some of the stoutest contestants in the annual race with Cambridge.

Though less wealthy and fashionable than Oxford colleges, those of Cambridge are not inferior to the sister university in scholarship, nor in the list of eminent men numbered among their graduates. The largest colleges are Trinity and St. John's, the former established by Henry VIII as a consolidation of several ancient foundations. Its large rectangular court is profusely adorned with statuary, and in its hall are the portraits of such eminent alumni as Bacon Newton and Dryden, while Byron Macaulay Thackeray and Tennyson are also among those to whom Trinity was an alma mater. At King's college, also completed by Henry VIII, but founded by Henry VI, the two Walpoles, Richard Temple, Stratford de Redcliffe, and many others known to fame completed their education. The chapel of King's with its its vaulted ceiling, its carved stalls, and its handsome altar-piece and organ screen is one of the finest in Cambridge. Near the ancient gateway of King's is Clare, with modern buildings though one of the oldest colleges in the group.

Proceeding westward from Herefordshire into the adjoining Welsh counties of Brecknock and Radnor, we find there separated only by two or three miles from English communities, a people who cannot even speak their language, one having nothing in common with the English except that both are subject to the same government. To the larger towns of Wales this remark does not of course apply; but in the country, and especially in the mountainous districts, there are many families still living almost in the same condition as when the Celtic tribes from which they are descended were driven westward by the Roman legions. They are an industrious and thrifty folk, but extremely superstitious, and averse to change of whatever kind. They will not milk their cows on Sunday; for this they account as sinful; and still are worn by women the tall sugar-loaf hats bequeathed as heirlooms from one generation to another, and not considered respectable until much the worse for wear.

While the northern portion of Wales is extremely mountainous, there are in the central and southern counties large areas of cultivable and pasture land, 60 percent of its surface being thus classified against only 25 percent in Scotland. Nevertheless there are many districts almost worthless for farming purposes, where the soil is barren and the rains so excessive that not one crop of hay out of three is gathered in serviceable condition. With livestock the country is fairly supplied, and especially with sheep, which thrive where cattle and horses would starve; yet of the agricultural holdings more than half are of less than 20 acres, and there are many thousands of less than five acres. The land is rich in minerals, with deposits of coal and iron not inferior to those of England, and it is in these deposits and the manufactures fostered thereby that the wealth of the country mainly consists.

Cardiff, so-called from its caer or castle, an eleventh century structure but with modern restorations, especially in its frescoed banqueting hall, ships every year more than 10,000,000 tons of coal, in addition to large quantities of raw and manufactured iron. It has six miles of quays and 115 acres of docks, most of the latter constructed by the marquis of Bute, to whom, as lord of the manor, the town owes much of its pros perity. Some 40 miles to the west is Swansea, which has been termed the metallurgical center of the world; and though this title may be exaggerated, it is not so with reference to copper, which is sent here to be smelted from many foreign lands, though not a pound of that metal is found in this portion of Wales. Iron, lead, tin-plate, zinc, and other manufacturing works are on an extensive scale, and in the neighborhood some 250 coal-pits afford an abundance of cheap fuel. Commerce is considerable, exports of tin-plate alone being valued at £3,000,000 a year.

Merthyr-Tydvil, noted for its iron and steel works, lies in the center of the great coal basin of southern Wales. Newport, a few miles east from Cardiff, is a commercial and railroad center with a moderate shipping trade. In the north are Bangor and Carnarvon, both lively and pleasant little towns, the former with a cathedral built on the site of a sixth century church; the latter with a castle founded in 1283, and one of the best preserved of mediaeval fortresses. Near Bangor are the Menai suspension and Britannia tubular bridges, the former completed in 1824 and regarded at the time as the greatest engineering achievement of the age. Among watering places are Aberystwyth, Tenby, and Llandudno; nor should we forget the seaport of Milford, whose spacious and land-locked harbor was believed to be the only one with depth of water sufficient for the Great Eastern when loaded, with her full cargo of 25,000 ton.

Since 1603, when the two crowns were united, and especially since 1705, when the two parliaments were united. Scotland and England have been virtually one nation, though never one people; for the Scotch are among the proudest of races, and strongly attached to their own customs and institutions. Certain it is that on the score of wealth they have nothing to complain of as to the results of this union; within the last two centuries the increase has been enormous, in much greater ratio probably than in southern Britain. For 1695 the entire rents of Scotland, whether in town or country, did not exceed £350,000; for 1895 they were estimated at more than £20,000,000; a gain of nearly sixty-fold, and about fifteen times greater than the proportionate gain in population. While this is caused in part by the smaller purchasing power of money and by a fictitious advance in rents, it is due more to improvements in agricultural methods, to the unfolding of mineral resources, and to the development of manufactures. The production of coal is at the rate of nearly 30,000,000 tons a year, and of iron and other metals the output is very considerable. The making of cloth and carpets, woolen and cotton fabrics keeps busy hundreds of factories and hundreds of thousands of operatives; there are sugar refineries, paper-mills, glass-works, pottery works, and countless other branches of industry; but most profitable of all is the distillation of whiskey, of which at least 25,000,000 gallons a year are produced in highland and other stills.

Glasgow is the industrial and commercial center of Scotland, rivaling Manchester in its manufactures, Liverpool in its shipping trade, and ranking next to London in population. In shipbuilding, and especially the building of steel and iron vessels, it surpasses all other ports, the shipbuilding yards extending westward to Greenock, several miles beyond the city limits. Here are constructed or supplied with machinery two-thirds of the steamers that carry the British flag, including the largest and fastest of ocean and river craft, the number averaging 250 to 300 a year, with a burden of 350,000 to 400,000 tons. In improving the harbor and building docks more than £5,000,000 have been expended within the last half century; increasing the width of the Clyde by continual dredging from 180 to 480 feet, and its depth from three to 28 feet; at least 12,000 vessels belonging to all the nations of the world unloading annually at this artificial harbor, for the improvement of which 40,000,000 cubic yards of silt have been dredged from the riverbed. Manufactures are multiform and of large volume, especially those of iron-works and machine-shops; for here are controlled the metallurgical industries of Scotland. Commerce is in proportion, exports exceeding 1, 500,000 tons a year, with coal and iron in various forms as the principal items. Glasgow is one of the best governed cities in Europe; its gas and waterworks,—the latter costing £2,500,000—its street railroads, parks, squares, and sanitary arrangements being under the control of a corporation of practical business men. Among the finest buildings are the cathedral the exchange, and the university; the last in the

form of a quadrangle, 530 by 290 feet, the spire of its central tower rising 300 feet above ground. Its cost, including that of the handsome common hall erected by the marquis of Bute, was £500,000.

Edinburgh, situated on a cluster of hills separated by deep ravines and overlooking the broad estuary of the Forth, is as to site one of the most romantic of European cities; buildings in themselves without beauty of design blending happily with the surrounding scenery, which is here of surpassing loveliness. The castle, for several centuries the residence of Scottish monarchs, is probably the most ancient structure, and around it still cluster the steep, narrow streets and tall, quaint houses of the old town, destroyed by fire and rebuilt about the middle of the sixteenth century. In the new town, composed of massive and costly edifices, are many handsome thoroughfares, of which Princes street, with its public gardens where is the Scott monument, is one of the finest in the British isles. Connecting the two quarters is a huge embankment called the mound, at the foot of which are the national gallery and the royal institution, both of classic architecture, the former containing a choice assortment of paintings, and the latter a valuable collection of antiquities. Holyrood palace, built on the site of a twelfth century abbey, has also its picture gallery, where are the portraits of Scottish sovereigns, including that of the ill-fated queen of Scots, of whom a few relics are still preserved.

In parliament house, where met the assemblies of the Scottish estates, and where now the supreme courts hold session, the architectural feature is the great hall with its handsome oaken roof. In another apartment is the advocates' library, with 300,000 volumes and many valuable manuscripts. Though originally a private collection, it is regarded as a national library, and is one of the few entitled by the copyright act to receive a copy of every work published in Great Britain. Among other libraries is that of the university, founded in 1582, and now containing some 4,000 students and a large corps of professors, whose quarters are in a massive quadrangular structure erected near the close of the eighteenth century. In connection with it are the botanical gardens and the observatory, one of the finest edifices on Calton hill. Edinburgh has long been noted as one of the foremost of capitals in literature, science, and art, though no longer deserving its former title of "the modern Athens," as in the days of Robertson, Adam Smith, and David Hume; of Jeffrey, Brougham, John Wilson, and Walter Scott. It has many churches, colleges, and charitable establishments, with scores of fine monuments; while of business buildings one of the finest is the bank of Scotland, an imposing renaissance structure.

Connected with Edinburgh by continuous lines of streets is its port of Leith, a bustling place; and not far away is Dundee, also a thriving seaport, and from time immemorial famous for its linen manufactures. North of the latter is Aberdeen, one of the foremost of Scottish cities in population, industries, and wealth, and with much of historic interest; the first of its many charters being granted by William the Lion in 1179. It is a well built town, constructed mainly of granite and with many handsome edifices, among which is the university, occupying the site of a Franciscan convent. Its harbor, naturally defective, has been greatly improved within recent years; its docks are well lined with vessels, and from its shipbuilding yards have been launched some of the finest and fastest clippers that sail the seas. Among inland towns are Perth, the ancient capital of Scotland's kings; and Stirling, with its high-mounted castle, once their favorite residence. Inverness the highland capital, though one of the oldest towns in northern Britain wears a modern aspect, and in its suburbs are many beautiful villas. On an adjacent hill, where now are the court-house and jail, stood the castle mentioned by Shakespeare in his tragedy of Macbeth.

On the bank of Dee and some fifty miles west of Aberdeen is Balmoral castle, the favorite summer residence of the queen, where in the company of her children and grandchildren she enjoys her holiday in simple fashion, amid the beautiful scenery and bracing air of the highlands. The estate was leased, and afterward purchased by the prince consort for the sum of £32,000; but many thousands of acres have since been added, together with a roomy and comfortable mansion erected by the prince in the baronial style of Scottish architecture.

From the little Welsh port of Holyhead, in the isle of Anglesey, the swiftest and best appointed of channel steamers run to the harbor of Kingstown, whence a few miles journey by rail brings us to the capital of Ireland. It is a beautiful town, with spacious thoroughfares, handsome buildings, and in its suburbs one of the finest parks in the world; but with little of the business stir that should characterize a city of metropolitan rank. The men of Dublin hold traffic in contempt, and would rather live amid the semi-starvation of poor and affected gentility, as members of the civil service, as military officers, or brief less barristers than make their fortunes as tradesmen, or even as merchants.

Yet that all are not so silly is shown by a considerable volume of commerce, as appears from customs receipts of about £1,250,000 a year. Within recent years the docks on the Liffey have been greatly improved, the river deepened, new wharves erected and, a commodious basin completed; yet the total of all Dublin exports is less than £100,000 a year, while those of Belfast, with little more than two-thirds the population, are at least five times as much.

Of many costly and imposing edifices the finest and largest is the bank of Ireland, formerly the parliament house, covering five acres of ground and requiring few alterations to adapt it to its present use. In front of the main facade, with its projecting wings, is a colonnade of the Ionic order; another colonnade in the form of a quadrant connecting it with the western front; while on the eastern side where was the entrance to the chamber of the lords is a row of Corinthian pillars. Trinity College, though a plainer structure, or rather group of structures, is of massive but symmetrical proportions. The interior of its chapel is beautifully decorated, and in its examination and dining halls are portraits of Edmund Burke, of Bishop Berkeley, of Grattan, Yelverton, Flood, and other famous Irishmen. The library of Trinity is the best in Dublin, though the one attached to St. Patrick's cathedral, founded in the twelfth century and since rebuilt in greater splendor, is richer in valuable manuscripts. The income of the college, mainly from rented estates, exceeds £70,000 a year; there is an average attendance of about 1,500 students, and its graduates include some of the foremost scholars of the age.

Among other institutions worthy of note are the royal college of science, with a parliamentary grant of £7,000 a year, though the number of students is seldom more than forty; the royal Dublin society with a grant of £7,500 for the maintenance of a library, museum, and art gallery; the national gallery with about £2,500, and the royal Irish academy, whose allowance is of similar amount. The reform club is one of the foremost of social organizations. The Four courts, erected at a cost of £200,000 on the site of a Dominican monastery, are the headquarters of the judiciary, while Dublin castle is the largest and by far the dingiest of all the great buildings, though with handsome tower and chapel. Monuments are plentiful in Dublin streets and pleasure grounds; that of Wellington, an obelisk 200 feet in height, standing in Phoenix park; among others in the city proper are those of Nelson, Grattan, Burke, Goldsmith, O'Connell, and Thomas Moore.

Belfast, on the northeastern coast, is the commercial metropolis of Ireland, and also her chief manufacturing city; its prosperity dating from near the middle of the seventeenth century, when Thomas Wentworth, the first lord-deputy, bestowed on it certain fiscal rights. At that date there were less than 1,000 inhabitants, dwelling in 150 houses, chiefly of mud and roofed with thatch; in 1395 the population was estimated at 275,000 and the buildings at nearly 40,000.

In 1695 some 50 ships with a total burden of 4,000 tons sufficed for the carrying and export trade. In 1895 more than 10,000 ships with a total of 1,750,000 tons were entered inward, and there were at least as many clearances, exports probably amounting to £30,000,000. Linen, and especially linen yarns, is the principal branch of manufacture, cotton-spinning, which at one time was the leading industry, having fallen into decadence. There is little of historic or architectural interest in this flourishing Ulster town, where all are intent on money-making, though the among buildings recently constructed are not a few of superior design and workmanship.

Londonderry ranks next to Belfast, among the seaports and marts of commerce in Northern Ireland. It is an ancient town, among its oldest buildings being a monastery erected about the year 546 on the spot where now stands the bishops palace, while still almost intact are solid ramparts, with their seven gates, constructed early in the seventeenth century at a cost of only £9,000. To the latter date, though with later additions, belongs the Episcopal cathedral, built at the expense of the city of London, in the later English style, a presentable structure, but inferior to the catholic cathedral in architectural design. Factories and shipbuilding yards are numerous; and a considerable source of wealth are the salmon fisheries of the Foyle, across which is an iron bridge 1,200 feet in length.

Limerick, the fourth as to traffic of Irish ports, and connected with an extensive system of inland navigation, is also noted for its bridges, spanning the broad stream of the Shannon, one of them, erected in 1827, costing £85,000. Its cathedral of St. Mary, founded in the twelfth century and rebuilt in the fifteenth, is a cruciform Gothic structure; and there is also a catholic cathedral of modern date. Galway was at one time a rival of Limerick, but not within recent years, though still with a moderate shipping and local trade. Almost side by side with handsome residences and shops of modern design are quaint old-fashioned buildings in the form of a square, with central courts and ponderous gates opening into the street. Cork and Waterford are the principal seaports of the south, the former ranking third among Irish cities in population, commerce, and wealth. Some 10,000,000 or 12,000,000 bushels of grain, with a large quantity of livestock, butter, and other commodities are here unshipped, exported, or marketed every twelvemonth, while several thousand coasting and sea-going vessels enter its spacious harbor. There are many fine business buildings; but for residence purposes Queenstown, with its genial climate and picturesque location, is the choice of the wealthier classes. Less than fifty miles toward the north is Killarney, now a modernized town with spacious thoroughfares and commodious dwellings, as befits this favorite resort of tourists and sight-seers. As to the beauties of the adjacent lakes, bordered by verdure-clad hills rising almost from the water's edge, nothing need here be said. Near Lough Leane studded with wooded islands where are the ruins of Ross Castle and the sweet Innisfallen of Tom Moore, stand hoar and solemn the picturesque remains of Muckross abbey, erected by Franciscan monks about the middle of the twelfth century.

Adjacent, and belonging to the United Kingdom, are many islands and island groups, as the Orkney and Shetland isles, the isle of Man, the isle of Wight, and the Channel islands, the last belonging geographically to France, but politically to Great Britain. The isle of Wight, separated by a narrow

strait from the county of Hampshire, of which it forms a part, is on account of its scenery and climate a place much frequented by health and holiday-seekers, without whose support the inhabitants could not exist; for while there is no lack of resources, there are no industries, except a little farming, fishing, and shipbuilding. In the summer months Cowes, Ryde, Ventnor, and other watering places are liberally patronized; but in winter the place is dead.

Jersey, the largest of the Channel islands, has a moderate volume of commerce, and though raising good crops of grain and fruit is noted rather for the richness of its pastures and the breed of its cattle, kept mainly for dairy purposes St. Helier, with its inner and outer harbor protected by a fortress that cost £1,000,000, is the only important town, and here are the homes of many poor gentlefolk; for living is cheap, though the days are gone by when a spacious mansion can be had for £10 a year, and the annual expenses of a family are less than the monthly expenses of one in London.

Miscellany

The Phoenicians used to visit the Britons for tin and lead, found today on the coast of Cornwall. The savage peoples then inhabiting these isles had no coins, unless the metal rings they used for money could be so called. Their basket-boats they covered with skins, and they made swords of mixed copper and tin. Their druids, or priests, made them build great temples and altars, religion here as elsewhere having a key to conscience and the money chest. This was as Caesar saw them shortly before Christ.

In his Faery Queen Spencer gives the cave of Mammon as the abode of his god of wealth, who is first a miser, then a worker in metals, and finally god of all the world's treasures, and whose daughter is Ambition.

The wealth of the Rothschilds is estimated at $2,000,000,000; it has doubled within 20 years, at which rate, in 100 years more, it will be $64,000,000,000.

During the heroic period of the Rothschilds' operations, one of their brokers was Moses Montefiore, whose ancestors, like the Disraelis, had come to England when the doors had been opened for them by Cromwell. Marrying within the Rothschild circle, he won for himself a colossal fortune on the exchange, and then became the apostle for his people. He aided in the removal of Jewish disabilities, so that his nephew, Baron Lionel Rothschild, could sit in the British parliament. On behalf of his suffering brethren throughout the world he made journeys to Africa, to Asia, and to various parts of Europe, travelling in princely state, in coach and six, by special train on land and chartered ship at sea. Backed by the power of enormous wealth, prince, potentate, and people bowed before him, as his hand scattered largess such as few sovereigns could indulge in. His hundredth birthday, the 24th of October 1884, was celebrated in the chief cities of the world.

Among wealthy Scotchmen was the shipbuilder William Henderson, whose estate at his decease in April 1895 was valued at $5,000,000. He was one of four brothers who established the Anchor line of steamships, and all of whom died within a period of two years, William being the last of the quartet. They began with a small capital, and as late as 1863 had only three vessels afloat; but receiving financial assistance, they had 36 steamers in their fleet in 1872, while hundreds of craft of all kinds were built for others under their superintendence. The two yachts named Valkyrie came from their yards at Glasgow as also did the Thistle, the Galatea, the Genesta, and the Britannia the last belonging to the Prince of Wales, the only boat that defeated her American competitor.

Baron Hirsch's estate of $65,000,000 was scattered throughout the various capitals of Europe. His great delight was in associating with royal personages, and for their friendship he was willing to pay.

Miss Coutts, the banker's daughter, inherited from her grandfather, who founded the London house in 1768, the lady assuming management in 1822, upon the death of the grandfather at the age of 91 years. Among her many benevolent gifts were the Columbia market and the church of St. Stephen.

To Thomas Guy were given the names of miser and philanthropist, though he was neither,—a miser because he won a fortune gambling in South Sea bubble stocks; a philanthropist because he gave £238,292 for which he had no use to gratify his vanity in founding a hospital to bear his name.

Osborne and Balmoral are the private property of the queen, as are also 600 rented houses, markets, ferries, and mines, estates in Yorkshire Oxfordshire and Berks, lands in Isle of Man, Scotland, and Ireland, besides revenues from forests and other sources. She has four yachts, one of which cost $500,000 to build and $65,000 a year to keep. There are royalty houses everywhere, public and private; as Buckingham, Windsor, Richmond, St. James, Kensington, Hampton, Kew, Pembroke, Bushby, Holyrood, Bagshot, Gloucester, Clarence, and the rest.

The income of the Church of England is estimated at $50,000.000 a year, most of which is absorbed by the bishops and archbishops, some thirty of whom have salaries of $15,000 a year and upward, while the archbishop of Canterbury receives $75,000.

The inferior clergy are miserably paid, $500 being a large stipend for a curate, and $300 or at most $350 an average stipend. A collier or brick-layer can earn more, and a skilled mechanic at least twice as much. How the managers for Christ can reconcile to their consciences such wholesale self-appropriation of church revenues is past the understanding of the uninitiated.

Great Britain has made foreign acquisitions, mainly during the nineteenth century, of one-third of the surface and one-fourth of the population of the globe, having of square miles in America, 3,500,000; in Asia and Africa, each 1,000,000; in Australasia, 2,500,000. Thus for every acre of British soil, Great Britain has nearly 100 acres abroad.

Notwithstanding her enormous possessions, the average of property held in Great Britain is less than $1,500 per capita, though even this is larger than in France or the United States, which rank next in point of wealth. There are probably not more than 500,000 persons whose incomes exceed $1,000 a year; but there are 2,000,000 to 2,500,000 with incomes of $500 to $1,000. The number of wealthy families,—say those having $25,000 a year or more—does not exceed 6,000 or 7,000. A man worth $100,000 is spoken of as rich in England; and among the middle classes $500 to $750 is considered a marrying income. The poor are very poor, and especially in London, where absolute paupers are numbered by hundreds of thousands, and nearly one-fifth of all the families must live on $5 a week or less.

The amount of foreign stocks held in Great Britain is estimated at the enormous total of $3,819,035,000, and the interest receivable upon them is $145,000,000 per annum.

The following figures may be of interest by way of comparison between the three greatest cities of the world. London, with a population of somewhat over 5,000,000, has 700,000 houses, an area of 80,000 acres, and 1,500 miles of streets; Paris, with 2,600,000 people, has 100,000 houses, an area of 20,000 acres, and 650 miles of streets; New York, with 2,200,000 people, has 120,000 houses, an area of 25,000 acres and 600 miles of streets. In London, the average is only 7 inmates to each house, against 26 in Paris and 18 in New York. In water supply New York takes the lead, furnishing 200,000,000 gallons a day, against 180,000,000 gallons for London and 120,000,000 for Paris. While the New York fire department is better than either of the other cities; losses by fire are larger in proportion to population, averaging $5,000,000 a year against $7,500,000 in London and less than $2,000,000 in Paris. The municipal expenses of London are $75,000,000, of Paris $70,000,000, and of New York $45,000,000; the cost of lighting London streets amounting to $3,000,000 a year, New York about $1,000,000, and Paris at least $3,600,000; for Paris is the best lighted city in the world. The park acreage of Paris, apart from the neighboring forests of Fontainebleau, is 130,000 acres,

while London and its suburbs have 23,000 acres and New York has its Central park of 840 acres in addition to some minor areas.

As to the commerce and industries of Great Britain and Ireland, sufficient has been said to afford a general idea of their character, scope, and extent, while to describe them in detail would be impossible within any reasonable limit of space. It remains only to be added that the fisheries of the United Kingdom are a very considerable source of wealth, the total catch averaging 500,000 tons a year, valued at £9,000,000 or 10,000,000. The deep-sea and especially the herring fisheries of Scotland alone give employment directly or indirectly to 120,000 persons, the annual sales of cured herring exceeding £2,000,000.

Marine insurance, though dating as Suetonius relates from the first century of our era, was unknown in England until 1598, and life insurance until 1706. The government, in addition to its 10,000 or more postal savings banks, conducts a life insurance business for the benefit of the poorer classes, but meets with poor success notwithstanding its hold on public confidence, for private companies offer better inducements. Its 30 years' operations have resulted in a smaller actual business than is transacted by some private companies in a single year.

From Russia, Germany, and Scandinavia, Great Britain has been importing lumber to the extent of about $45,000,000 a year, and from other sources about as much, making the annual imports of forest products $90,000,000. The elm, lime, chestnut, and poplar were introduced into England by the Roman invaders, and forestry began there prior to the time of Edward IV.

Much of the business of diamond cutting has been removed from Amsterdam to London; for in England are mainly owned the diamond mines of South Africa, the largest in the world. It is doubtless a profitable industry, for the world's diamonds are worth more than all its other precious stones put together; while perfect rubies are worth more per carat than the finest diamonds, they are extremely rare. Among the more famous brilliants in the possession of Englishmen is the "Hope blue diamond," named after its purchaser who paid for it $90,000. It appears to have been brought from India by the French traveler Travernier in 1641, when it weighed 112 carats, since reduced by cutting more than one half; but its history is somewhat doubtful.

The Manchester, England, corporation has in its service nearly 7,000 men who receive wages, yearly, to the amount of $2,250,000.

The contents of the London Zoological gardens are valued at £70,000, which includes one item of about £22,000 for animals, and another of £16,000 for books. The expenses of the gardens, about £24,000 a year, are almost covered by gate and other receipts, whatever is lacking being contributed by fellows of the society.

On its great ordnance survey map, now almost completed, England has expended more than $20,000,000 and 20 years of time. It has about 110,000 sheets, and the scale varies from 10 feet lo the mile for the larger cities to one-tenth of an inch per mile for remote and mountainous districts.

Chapter the Seventeenth: Africa

To be thought rich is as good as to be rich.
—Thackeray

The shortest way to riches is by contempt of riches.
—Seneca

If we are rich with the riches which we neither give nor enjoy, we are rich with the riches which are buried in the caverns of the earth.
—Vishnu Sama

Riches, perhaps, do not so often produce crimes as incite accusers. Want keeps pace with wealth. Wealth may be an excellent thing, for it means power, leisure, liberty.
—Johnson

Wealth is an imperious mistress; she requires the whole heart and life of man. Life is short; the sooner a man begins to enjoy his wealth the better. Wealth is not his that has it, but his that enjoys it. If you would be wealthy, think of saving as well as of getting.
—Laboulage

Wealth created without spot or blemish is an honest man's peerage, and to be proud of it is his right.
—Beecher

Covetousness is ever attended with solicitude and anxiety.
—Franklin

We never desire earnestly what we desire in reason. Avarice, which too often attends wealth, is a greater evil than any that is found in poverty. It is more opposed to economy than to liberality.
—La Rochefoucauld

It is not a social passion.
—Hazlitt

It is a passion full of paradox.
—Colton

It grinds like an emery; it seldom flourishes save in the poorest soil; it is generally the last passion of those lives of which the first part has been squandered in pleasure, and the second devoted to ambition: he that sinks under the fatigue of getting wealth lulls his age with the milder business of saving it.
—Fielding

Midway in our survey of the world's wealth, we come to the Dark Continent, early known but late to be penetrated by Caucasians. Here we are met by the still unanswered questions. Whence the inhabitant, with his black skin and woolly hair? Is he a son of Noah, or an autochthon? And what makes his skin black and his hair woolly, a father's curse or a southern sun? We will not question the possession of a soul, gravely discussed within the century, but grant him one, with all the rights and privileges inherent in all of God's creatures, whether possessed of souls or not.

The history of the Africans is not without its lessons; but we are not always ready to accept, still less to apply the lessons of history. Our ethics are only partially sound, made up as they are of truth and falsity, reason and unreason, common sense and uncommon foolishness. Intellectual vision, never of the clearest, is rendered yet more obscure by opaque clouds of tradition and prejudice, and if unpalatable truths are made too plain, we close our eyes and wrap self-love in previous opinions. We do not like to admit how little we know of ourselves, or can ever know of others, or whence or what the agencies which have come into man's being to make him what he is.

We are loath to accept the principle forced upon us that the ultimate right is might, that whatever is, omnipotent and inexorable power has so willed it, and therefore it must be, even though the weak unjustly go to the wall. What is right? we then ask, and straightway institute search for the difference between ancient infamies and our own, those to which we have tuned our tongue to give the proper name, and those which self-interest and superstition constrain us to call progress, improvement, the greatest good to the greatest number. Time, the illuminator, the conscience-tamer, and healer, permits us now on occasions to tell the truth. Time was when he would be scorned or persecuted who should say that every foot of land civilization rests upon is stolen property, even that whereon are reared our churches and hospitals and institutions of learning; yet we are just as ready as ever, while denouncing theft in the abstract or when practiced on ourselves, to steal all the land in the possession of weak and defenseless peoples which is worth the stealing.

But this is not all, nor by any means the worst of it. We used to steal men, but that form of theft we have abandoned. Why? Optimists and philanthropists say because the world is growing better and men more humane. Perhaps so. But why then do not men cease from stealing lands and killing those who attempt to defend them? It is difficult to establish the theory that human nature has changed, however manners may in some respects have become refined. A century or two ago men were wanted more than land; now land is more coveted than the enforced labor of men.

Property primeval consisted not only in air and sunshine, but in lands and streams and vegetation, while gold was of no special value, and so-called precious stones were worth no more than other stones. But at a very early date it was ascertained that human beings could, if caught, be utilized by the catcher as bondsmen, and thus the infamous practice grew, and developed into such vast proportions as to make it appear that on the whole, while many had grown rich thereby, slavery did not pay. Then Christendom pronounced it immoral. But it has not yet become immoral for European nations to enter the lands of defenseless peoples, take forcible possession, and proclaim laws; and should any rise and do battle for home and country they are called rebels and, butchered, with heralded glory to the butchers, all in the name of progress and civilization.

For the first score or two of centuries of our history, men spoke plainly and acted openly, claiming the right to rob, kill, and enslave; but since the gods have all left Olympus we must needs serve the devil under the guise of Christian charity. After all, if it tends to lessen cruelty or iniquity in any form, it

may be as well to foster those schools of moralists whose leaders are able so clearly to show the difference between the old African slave trade and the trade which today permits men to enter Africa with book in one hand and sword in the other, to seize the country, and upon the first plausible excuse which offers to kill off the inhabitants.

The continent of Africa is teeming with wealth, and the great powers of Europe are quarreling over its seizure and partition. That this inevitable accompaniment of our nineteenth century civilization, which sooner or later is visited upon all savage countries, has been here so long delayed, was due to wars at home and the still incomplete extermination of native races in India and America. Slaves and ivory and gold and diamonds were, however, too glittering prizes for the cupidity of dominant races forever to resist, and soon the black man, like the red man, will have to surrender his home, and then the yellow man's turn will come, when the souls of Chinas millions will be converted to Christianity and their property transferred to our pockets.

The seizure of Africa by European powers was somewhat similar to the seizure of America 400 years ago. The possessions of the weaker races are taken by the stronger as a matter of course, and as by divine right. The entire continent of Africa, except the Sahara and the interior of Sudan, has been appropriated European nations in tracts of millions of square miles.—Great Britain 2,500,000, France 3,000,000, Germany 82,000, Belgium 850,000, Portugal 900,000, Italy 600,000, Spain 250,000. Turkey, 840,000—leaving unappropriated—besides Sahara and the Sudan.

Morocco, Liberia, and the Boer republics—only about 1,600,000 square miles. It appears to be the will of God that Europe should possess the world, and that the Hittites and Amorites, the Hivites and Jebusites of America and Africa, of India and peradventure of China should be smitten and utterly destroyed.

One reason why the interior of Africa has remained so long undisturbed by the march of civilization is the malarious nature of a large part of its border,—reputed at least to have a climate deadly to Europeans—this, and the jealousy manifested by the various nations holding possession of different parts of the coast uniting to protect other portions from the inroads of foreigners.

Speaking generally, as far as general remarks can apply to a continent so large and diversified as Africa, from the low coast belts of either ocean, covered with yellow grass and scattering palms interspersed with swamps and inhabited between the widely separated native villages by the leopard and hyena, the crocodile and hippopotamus, the country rises first into a low and then to a higher mountainous plateau covered with forests of thin stunted trees. In the northern interior, back of the Atlas mountains is the Great Sahara desert, and in the southern interior are lakes and rivers, mountains and plains filled with vegetable and mineral wealth, the riches of royalty and nobility being largely in wives and slaves.

Early in the movements of the human race, intimations of which come to us from the twilight of mythology, the most ancient nations of the east, and later the Phoenicians and others, planted colonies along the Mediterranean shore of Africa, and even on the Atlantic seaboard. Libya, the continent was called, which Herodotus says was circumnavigated by Phoenician ships furnished by Pharaoh Neko, king of Egypt. But the Asiatics who cruised around the Mediterranean coast of Africa 3,000 or 4,000 years ago were not disposed to penetrate far into the interior, even had they been able to do so, in the absence of any large river west of Egypt. Nor were there great and wealthy nations to

conquer and despoil, while stretching almost across the continent was the broad expanse of the Sahara, where according to tradition were quickly burned to ashes those who dared venture therein.

Of the settlements made upon the northern seaboard, those of the Phoenicians are of the earliest authentic record, though how far they explored inland has not even yet been determined, some saying that their traders were on the Niger, others only on a branch of the Nile. With their camels the Arabs could cross the desert with some degree of safety, penetrating as far as the Senegal and Gambia, and planting colonies at Sofala, Mombas, Melinda, and other points.

Voyages were made along the western coast, if indeed the continent was not then circumnavigated by the Egyptians and Phoenicians notwithstanding their fear of the sea of Darkness beyond the Pillars of Hercules. It was of the people of this coast that the story is told by Herodotus, so often repeated and applied to other nations as to the method of traffic, strangers landing and quickly retiring after leaving articles on shore, whereupon the natives would appear and place beside them other articles that they were willing to give in exchange. It is certain that long before modern Europe had any other than the vaguest knowledge of the country, Mohammedans had made their way inland and formed settlements on the banks of the Niger, among which were Ghana, later known as Wangara, and Tokrur, somewhat to the eastward. In the Niam forests to the south the followers of the prophet kidnapped the natives and sold them to the slave merchants of Barbary and Egypt.

Upon the general awakening from the relapse into barbarism which followed the dissolution of the Roman empire, the African coast attracted the attention, first of Spain and then of Portugal. In 1393 one Almonaster visited the Canaries, and in 1405 the dominion of these islands was granted by the king of Castile to the Norman baron, Jehan de Betancourt, who explored the coast beyond Cape Bojador to the Rio d'Oro, where he gathered much gold and many captives. Portugal then came to the front, and while the armament assembled at Lisbon awaited its orders for the attack on Morocco, certain adventurous captains sailed along the coast to a point whence manners had hitherto believed it impossible to return.

When in 1415 the Portuguese took Ceuta, a town on the African coast opposite Gibraltar, Prince Henry was told by Moorish prisoners that beyond the Sahara, beyond the fiery zone which the ancients had deemed it impossible to cross, was a populous country, rich in ivory and gold. The people there were very black of skin, with short hair crisped to the head, probably by reason of the heat, which was so intense that it boiled the surf on their shore. This Henry of Portugal, who was one of the world's great men, with intelligence far in advance of his time, and with no taste for the frivolities of his father's court, resolved to gather in some of these black men with their gold and ivory and woolly hair. He was not afraid of the traditional heat,—that is to say he did not fear it for his captains,—and he had seen the surf boil when it was cold. So he drew around him the braver and more intelligent men of the nation, and opening a school of navigation and discovery at Sagres, near Cape St. Vincent, sent forth expeditions which resulted in the occupation of the Gold coast by the Portuguese, and the opening up by sea of the Negro slave trade. A gold mine was profitably worked at Approbi, and so great was the yield at another point, that the place took the name of Elmina, and a settlement was formed there, with fort soldiers and church, and all the appliances needed for entrapping and converting the natives. Thus while the illustrious Genoese was preparing to open a pathway for Europeans to the land of the naked red man in America, John II of Portugal was deriving his revenues largely from the robbery of the naked black man in Africa. Claims were subsequently preferred by the French to the

ownership of the Gold coast, on the ground of discovery prior to that of the Portuguese. Villault was there in 1666, and found French names on the Grain Coast, where settlements had been made by the Rouen Company about 1616, on the strength of which he claimed priority of possession for the French of the Gold and ivory coasts as well, but without success. Further than this, Prince Henry, in 1433, had obtained from Pope Eugene IV a bull granting to Portugal all lands which had been or might be discovered beyond Cape Bojador.

In 1486 was organized under the auspices of King John the Guinea company, two fleets thereafter making annual voyages between Lisbon and the Gold coast. Whenever the Africans attempted to defend their property or their rights, the Europeans would slaughter them without mercy, as has ever been the custom in such cases, and is so to this day. So long as papal anathemas were feared by the other nations of Europe, the Portuguese were but little molested in their monopoly of the bodies and souls of these millions of Africans; but in due time the Dutch and English appeared, hungry for a share, and were soon deep in the African trade for ivory, gold, and slaves, bargaining and kidnapping, attended with constant fighting with the natives and with each other, the French and Portuguese joining in the fray. It was a sight indeed for high heaven to smile upon, the Christian nations of Europe thus snarling like hyenas over the African and his possessions, while easily reconciling the most infamous outrages with the tenets of their faith. The Dutch and English, by stirring up the natives against the French, Spanish, and Portuguese were soon in the ascendant, the states-general of Holland planting settlements, and establishing Fort Nassau at Mori, but later transferring them to the Dutch West India Company. The occupation of the Gold coast by the Portuguese covered a period of 160 years, from 1482 to 1642, while the Dutch remained for 232 years.

In 1618 James I of England granted a charter to Sir Robert Rich and certain London merchants for a joint stock company trading to Guinea. A second charter was granted by Charles I in 1631 to Sir Richard Young, Sir Kenelm Digby and others, the traffic in slaves being their chief object, as the gold and ivory trade had by this time almost disappeared. Slaves had already been brought from the African coast by the Portuguese, and the Spaniards had their slave mart, the traffic being sanctioned by the pope in 1517, and increasing with such rapidity that by 1539 the sales of human beings reached 12,000 a year. Sir John Hawkins opened the barter for England in 1563. Forts were built and posts established on the African coast; buying and kidnapping began in earnest and with every facility to "take niggers and carry them to foreign parts" at the lowest possible price. A third charter was bestowed in 1662 on the Company of Royal Adventurers of England trading to Africa, including among men of exalted rank the king's brother, James duke of York, who besides other contracts agreed to supply the British West Indies with 3,000 Negro slaves annually. Another company of royal adventurers trading to Africa was organized in 1672 with a capital £111,000, the king and the duke of York being among the members. The English built forts in addition to those they had already on the coast, thus greatly increasing their facilities for supplying the world with African products, chiefly in the form of slaves.

More battles and butcheries followed, whenever the people raised objections to the stealing of their property or the kidnapping of those who were to be carried off to death or bondage. In 1698 the restrictions on the trade were removed, and English owners of plantations in America were permitted to obtain their slaves direct from Africa, paying to the government ten percent of the value of the cargo. This act, on its expiration in 1712 was renewed by parliament.

There was quite a choice as to quality in the human chattels exported from Africa. The occupation of the country was divided among many tribes or nations the Denkeras and Ashantees being conspicuous in Guinea. When the natives were at war with each other the slave business was good, for then the prisoners taken on either side were offered in the market; hence European buyers found it to their interest to foster enmity not only among the aborigines but against all rival purchasers. The English Gold coast brand was regarded with highest favor in the West Indies. These goods were called Koromantees, from Cormantine, the place where the English first obtained their supplies. They were of a nobler race, and while more difficult of control, displayed greater courage and endurance than others, and commanded in price £3 or £4 a head more at the plantations.

The trade was not without its tricks. Young men from fourteen to twenty years of age were most desirable, but the middle-aged were made to look young by shaving the head and anointing the body with palm-oil, the teeth in their decay being the greatest tell-tale. Exporters usually purchased their cargo from native dealers, kidnappers, and chiefs at war. The buyer first had his goods examined by a surgeon, and then branded by a red-hot silver instrument on the breast or shoulder. The men were then ironed in couples, and placed in dungeons until shipped. On board the vessel they were fed twice a day, and allowed on deck during fair weather, though still in irons. So long as the trade was legitimate, that is under protection of government, the slaves were fairly well treated if they remained quiet; for their owners had the same interest in keeping them alive and landing them in good condition as if they had been so many cattle; but when the traffic became illicit, requiring more secrecy and watchfulness, and also more subject to outbreaks, their sufferings were something horrible, so much so that many thousands killed themselves to escape from their physical and mental agony. Then came the pirates their former nests in the West Indies, now broken up by government cruisers, plundering, capturing, burning, adding if possible to the terrors of the scene.

In 1750 parliament passed "an act for extending and improving the trade to Africa," and a fifth English company was created, called the African Company of Merchants, whereafter 10,000 slaves were carried annually to the West Indies from the Gold coast alone. Meanwhile with their chief town and fort at Cape coast, British influence on the Gold coast increased, until as in India the affairs of the natives and the manipulation of rulers were in their hands. The wars of the Ashantees and Fantees assumed greater proportions, which gave the English still further opportunity to place their own tools as kings, and thus make still more secure their foothold, not only as against the natives but against other European nations. The slave trade was in due time formally abolished by European governments, but nevertheless the traffic continued until a much later period.

In regard to the gold mines in this vicinity, after a lapse of two centuries they were reopened in the auriferous district of Wassaw, on the head waters of the Bonsa River, a tributary of the Ancobra. Notwithstanding the many malarious swamps thereabout, rendering the climate deadly for Europeans, several companies were formed in 1877 and afterward; first the African Gold Coast company, then the Swanzy, the Effuenta, and others, a French company, the Abosso, later commencing operations at the place of that name. The cost of transportation, however, about $150 a ton, prevented the working of the mines at a profit, whereupon still other companies were formed with coast harbors nearer the mines.

The continent has been explored by travelers ambitious for fame, many of whom lost their lives in consequence. Mungo Park in 1795 crossed from the Gambia to the Niger, which latter river he

followed to Silla, returning home in 1797. In a second journey in 1805 he descended the Niger to its mouth, passing Timbuctoo, and being killed by the natives at Boussa. Later voyages and explorations I can but briefly mention. The journey of Mungo Park was followed by that of the Portuguese Lacerda, in 1798, from Mozambique to Cazembe, where he died. In 1796-1798 Homemann set forth from Cairo and was never heard from after reaching Murzuk. Two Portuguese traders crossed the continent from Angola to the Zambese in 1802-1806. Then there were the expeditions of Tuckey to the river Congo in 1816; Lyon and Richie from Tripoli to Murzuk in 1819; Denham, Clapperton and Oudney from Tripoli across the desert to Lake Chad in 1822-1823; and a score of others before 1857, when Hahn and Rath, Bastian, Du Chaillu, Barton, and Speke appeared upon the scene. Silva Porto and Livingstone crossed the continent in 1853-1856, the latter being in the lake region in 1861. After this came Baker and a host of additional adventurers, winding up with Cameron, Stanley, Gordon, and the rest. The continent has been crossed many times by prospectors for gold from Cape Colony as far north as the Zambezi River, or even Mozambique and Zanzibar on one side and Lower Guinea on the other.

Nearly 3,000 years ago was planted on the coast of Africa the commercial city of Carthage, which was 100 years old before Rome was founded. For several centuries the history of Carthage is the history of northern Africa, Carthaginian domination extending during that period from the altars of the Philæni to the Pillars of Hercules, including as provinces the Balearic isles, Malta, and Sardinia, besides settlements in Gaul and Spain. A triple wall enclosed the city whose harbors were artificial, the most conspicuous feature within the walls being the Byrsa citadel later occupied by the church of St. Louis.

The ground about Carthage and Tunis is historic, even though the history itself be dead. Long before Tyrian Dido built her city, the white walls of Tunis glistened in the sunshine. Some people fancy that four or five thousand years ago the Canaanites despoiled by Joshua found refuge here; others that the first settlers of Tunis were the Amalekites and Philistines of King David's time. Here is where Regulus defeated the Carthaginians; there is where the Vandals and Romans fought and from this shore sailed Genseric, for such parts as God should permit. Five millions of human beings were slaughtered on this coast within a period of twenty years, during the wars of Justinian. Then came the Saracens, and after them Louis IX of France; then Barbarossa, who taught piracy so effectually that the people practiced it successfully for centuries; then Andrea Doria for Charles V captured Tunis and killed 30,000 of the inhabitants.

One of the greatest engineering works of ancient Africa was the aqueduct which supplied Carthage with 7,000,000 gallons of water a day. It was 40 miles in length, and mainly in the form of a series of stone arches. Near Susa, the amphitheater of El Djem, or the Thysdrus as it was called, was regarded as the African coliseum, second only to that of Rome, being 430 feet in length by 370 wide, and with an arena 238 by 182 feet. In the games of its amphitheaters Africa copied Rome, and in the cruelty of its human sacrifices, Moloch, whose idol stood before the temple of Baal, need not blush before the demons of any religion created by man.

Tunis chiefly depended for future happiness on the mosque of Jami-al-Zeituna, which is likewise a college having a library where Islamism is taught. In the European quarter are many modern built houses, mainly after the pattern of the French. The bey's palace contains some fine Moorish decorations in stucco arabesque. To repair the ancient aqueduct the bey, Mohammed-al-Sadik, expended $2,500,000. Now, as in the time of Leo Africanus, the leading manufactures are textiles, and especially silk-weaving, the latter dating from the corning of the Moors from Spain. Oils and

essences, tobacco, and leather are likewise here manipulated. While the bazaars of Tunis are fine, they are not equal to those of Constantinople and Cairo. As in all Muslim cities, traffic is arranged to save trouble for the purchaser by bringing together as many shops of a kind as possible.

The center of the oriental perfumery trade is here, and for this commodity alone is set apart an arcade 400 feet in length. Tripoli is a small Moorish city, with narrow, dirty, unpaved streets, and several mosques; it is the capital, forming with Benghazi, since 1835, a Turkish vilayet.

The Berbers, of what is now the French dependency of Tunis, are more Arabian than those of Algeria and Morocco. Their tribal self-government is democratic, their laws being different from those of the Koran; and they are a pastoral rather than an agricultural people, the pastoral nomads being almost as indolent and even more unruly than in the eleventh century, when first the country fell under Arab domination.

The Barbary Coast throughout its whole extent is well supplied with mineral wealth, iron and lead being the metals most widely distributed. Besides pine and deciduous oak, cork and zen trees cover large areas in Tunis, though the country is less wooded than in ancient times. Large grain crops are raised, notwithstanding imperfect cultivation; the olive and the vine are here conspicuous; in the uplands is esparto grass, and on the oases of Jerid the date palm. It was the grain fields and flocks, the oil and wine, the mines and fisheries of Tripoli, Tunis, Algeria, and Morocco that made Carthage great. Tripoli has some fertile land along the sea, the interior consisting of sandy plains and mountains which unite to form the Atlas range in Tunis. The figs, dates, and olives of Tripoli are of excellent quality, and prominent among articles of commerce and manufacture are pottery, castor-oil, ivory, and ostrich feathers.

In Algeria the Atlas range rises in places to a height of 7,000 feet, the Sahara side being a land of fruit and pastures, whose people are gardeners and shepherds while the inhabitants of the fertile basins of the Mediterranean zone are largely grain-growers. The Berbers, the aborigines of the country, though inveterate thieves, are an active industrious race, with villages in the higher elevations, and not without skill in the manufacture of guns, gunpowder, carpets, leather articles, and such agricultural implements as they use. There are also the turbulent Bedouins, or nomadic Arabs, who live largely in tents; the Moors, a mixture of races dwelling in villages near the coast; the Jews, money-lenders and merchants of the towns; also Turks, Kolougis, Negroes, and Mozabites; all these in addition to the Europeans,—French, Spaniards, Italians, English, Germans and the rest.

Under Roman rule towns were built roads made, and commerce and agriculture extended. But in the fifth century the Romans were expelled from Africa by the Vandals, who in turn were driven out by Belisarius the Saracens acquiring the mastery in the seventh century, after which the country was divided into small states under petty chieftains, and straightway relapsed into barbarism.

In the eleventh century arose the religious sect of Morabites, who founded the dynasty of the Almoravides, followed in the succeeding century by the Almohades, upon the downfall of whom the country was again broken up as before. Not content with driving the Moors from Spain, Ferdinand sent an array to Africa in 1505, and captured among other places Oran and Algiers. After this came the Turks, and then the Spaniards again, and finally France, and always the pirates, with whom the invaders were indeed one, as many of them were largely in the piracy business themselves, the most

important point being on which side were the aggressors and on which the victims. Of late the country has become commercially very prosperous, discounts at the bank of Algeria doubling within a decade.

Even by the Romans Algeria was deemed a rich country, and is so regarded at this day, although the mineral deposits have never been fully developed, copper, lead, and iron being especially abundant. There is much fertile soil, five or six millions of acres being devoted to the raising of wheat and barley alone, while large areas are planted in cotton flax tobacco and vineyards. Oran ships large quantities of esparto grass, used in the manufacture of paper. Algeria imports from France, Spain, Great Britain, and Italy $35,000,000 worth of cotton-goods, sugar, wines, salted fish, and other commodities, exporting livestock, hides, wool, vegetables, tobacco, raw cotton, olive oil, flax and ores, to the value of about $25,000,000.

Before Algeria became a French province, and while in possession of the Turks, it comprised the four provinces of Algiers, Titterie, Tlemcen, and Constantine, the last three governed by beys, under the general rulership of the dey. It is now divided into the three departments of Algiers, Oran, and Constantine.

Morocco marks the western verge of ancient Arab occupation. In area it is twice as large as Algeria, and five times larger than England. Though old in history, and bordering the highway of nations, there are portions of the country, as the Rif hills, which still remain unexplored by Europeans. The coast towns were founded by various nations, and destroyed and built again. Portugal, Spain, and Italy regarding it as rare sport to bombard the little towns along the Barbary Coast on any slight pretext. Though averaging 4,000 or 5,000 feet in height, there are peaks in this west end of the Atlas chain rising from 10,000 to 13,000 feet above the ocean.

There are extensive mineral deposits in Morocco, —Jebel Hadid, or the iron mountain; copper and lead near Tetuan; antimony and gold in various places. Among the mountains are areas of woodland, though small as compared with the forest wealth of ancient times. As a rule the Moors will labor only to satisfy their requirements; and it is said that not more than one hundredth part of the agricultural land in Morocco is under cultivation. The camel is the animal drudge of the country, horses being used for war and personal service or display. There are horned cattle, sheep, and fowls in abundance. In the coast fisheries is a never failing source of wealth.

For beauty of situation the city of Morocco is unsurpassed, embowered as it is in groves and gardens between the mountains and the sea.

It is surrounded by a dilapidated wall 30 feet high, with square towers 360 feet apart. The tower of the Kutubia mosque is the most conspicuous object; the houses are not high, and are for the most part built of clay; the sultan’s palaces cover considerable ground, walled in, and with fine parks and gardens. The making of and working in red and yellow leather employs a large number of men. In place of its ancient population of 700,000, the city has now about 50,000 inhabitants.

Fez is a city of lofty minarets, stately domes, and flat-roofed houses, surrounded by a crumbling wall, but seated amid a plain of verdure streaked with silvery streams, gigantic aloes marking the paths which intersect the vast fields of grain. Founded in 808, before the end of the century, if we may credit the historian Kaldun, Fez rivaled Baghdad in wealth and splendor, and was called the Mecca of the west and the Athens of Africa. Chief among its numerous mosques were those of El Caruin and

Edris. In the middle of the eleventh century Gregory IX founded here a bishopric. Under the Almoaci schools of science and philosophy were established, with a large library of Greek and Latin manuscripts, and hither came scholars and learned men from every quarter of the Levant. At that time the city, with its 86 gates and 30 suburbs, had great hospitals and baths, 10,000 shops, 90,000 houses, and 800 mosques. It now contains, among its 150,000 inhabitants, more than 8,000 Jews with their rabbis and synagogues, and stores of hidden gold. The women array themselves in gorgeous apparel,—red jacket and waistcoat covered with heavy gold braid and embroidery, green cloth petticoat trimmed with gold, flaming colored handkerchief covering the head, and red or blue silk sash round the waist.

Another holy Muslim city is Kairwan, some 80 miles from Tunis, which place it somewhat resembles, though by no means conspicuous for wealth or luxurious living. The mosque at Kairwan is not unlike a fort with minarets and stone towers. Within are200 columns of marble jasper and porphyry, of Saracen Greek and Roman patterns.

Throughout the sultanate or empire of Morocco, rich men, both Jews and Mohammedans, make a practice of hiding their money, as a protection alike from government and banditti. Governors of provinces are frequently arrested by order of the sultan and thrown into the dungeon of Fez, there to remain with frequent bastinadoes until the hidden treasure is revealed. The city of Morocco, where are many goldsmiths and makers of enameled pottery, exports wax, wool, and hides, and obtains from abroad European silks and trinkets. Tetuan makes inlaid damascened guns, and Mechinez and Fez swords of fine workmanship.

Mechinez boasts the most beautiful women in Morocco, and the finest gardens in Africa. It is said that in 1703 the imperial palace, founded by Muley Ismael, was two miles in circumference, and contained 4,000 women and 1,000 children. Nearby was a great market, connected with the city by a road having on either side 50 fountains; also a grove of great olive trees, seven mosques, a garrison of artillery to hold in check the Berbers, and a government treasury containing $100,000,000. It was whispered in times past that within the palace was another palace, enclosed within three stone walls and lighted from above. It was entered by a low passage having three iron doors, and leading into a subterranean room where 300 slaves four times a year counted and packed up the gold and silver to be sent to the sultan, his imperial highness being present.

The slaves were confined to this sepulchral treasure vault for life, never being permitted to behold the light of day. Around the great hall were standing ten earthen jars, which contained the heads of ten slaves who once tried to steal and escape, the operation which placed them there being performed by Muley Soliman.

The Muslims hate Christians with a bitter hatred, and have just cause to do so. When landing at Tangiers the passengers are brought ashore on the backs of Jews, of whom there are many here, both Spanish and Moorish. Christians are specially obnoxious to the mountaineers of the coast range, the Riffians of Morocco, and other Berber and the tribes, the Kabyles of Algeria, Tuaregs of the desert. All the tribes are fierce warriors, and the richest among them are those occupying the fertile valleys of the mountainous region, their possessions consisting chiefly of fine horses and many cattle. The nineteenth century was well advanced before this huge nest of pirates by sea and brigands by land was rooted out, Tangiers being bombarded by the French in 1844, though many years later both piracy and brigandage were practiced as opportunity offered.

Tetuan was populated largely by refugees from Granada, when the Moors were driven from Spain by Ferdinand and Isabella. They were a people superior to others of their race, and their city displayed more refinement and luxury than those in its vicinity. The wealth they had they did not hide away, but employed it for the betterment of themselves and their neighbors. Tetuan is larger than Tangiers; the streets are wider, and the houses better built. Of the 22,000 inhabitants, 14,000 are Moors and 7,000 Jews, the greater part of the remainder being Spaniards. Business centers among the guilds, though the shops where diverse branches are conducted are open side by side.

Sahara, lying between the Barbary coast and the Sudan, and extending from the Atlantic ocean through Africa and into Asia, is almost as large as Europe, although it has a population of less than 3,000,000, Arabs, Berbers, and Negroes living in tents and brush huts, while Europe, where the mind as well as the body is nurtured and cultured supports more than a hundred times that number in substantial structures. The surface one would hardly call diversified, notwithstanding the undulating sand-dunes of the west and north, and the mountains and plateaus of the south and east. There are several trade routes over which the commerce is considerable; as from Morocco to Cairo; from Kuka to Murzuk and Tripolis; from Tripolis to Sudan; from Tinibuctoo to Tripolis; from Tunis and Algiers to Timbuctoo; from Timbuctoo to Morocco. The Sahara is by no means all desert; the northern part, though mountainous, has much fertile land of the date-growing quality, while the southern section, which borders on the great desert, is alternately sterile sand and oasis. The Sahara villages are engroved among fruit-trees, conspicuous among which, besides the date-palm, are the peach apricot fig and pomegranate, and also the vine. In the mountains nearest the coast are forests of cedar maple ash and other trees, some of them very large. Besides the several grains, cotton sugar and tobacco are cultivated. In some parts of the 2000 by 1000 miles of sandy stretch, there is a temperature in the hottest days of summer of 150 degrees Fahrenheit, which is exceedingly severe on caravans where the wells are ten days journey or more apart. Entire tribes have been known to perish where the wells have dried up, and no one but an acclimatized Moor, Berber, or Arab could live for a single summer day without water in the heart of the rainless district.

South of the Sahara, the Sudan, or country of the blacks, as the mediaeval Arabs named it, though likewise called Nigritia, or Negroland, has an area of 2,000,000 square miles, and a population, perhaps, of 80,000,000.

In elevation it stands midway between the low-lying sands of the desert and the high plateau, varying from arid sterility on the north to fertilizing moisture in the south. The climate is tropical, with rains from April to October; redundant forest vegetation interspersed with prolific alluvial soil, and heat dry or damp, everywhere. The plants most cultivated besides grain are cotton, tobacco, hemp, and indigo. Among the multitude of Sudanese animals the elephant stands first, and as a source of wealth, quite alone. Beasts of prey are innumerable, and here has ever been an unfailing source whence Asiatics and Europeans could draw their slaves.

The elephant is rapidly disappearing from Africa, and with the decline of the ivory trade the slave trade declines, as thousands of slaves were bought to carry the ivory to market. When the diamond and gold fields of the country have also been exhausted, it will be ready to turn its attention to something more valuable and develop its real resources. At$2.50 a pound the tusks of an elephant are worth $150, while the elephant itself aside from its tusks is worth little or nothing. Slaves, ivory,

diamonds, and gold are not the most solid foundations for wealth, and until these have disappeared, slight use will be made of the immense tracts of fertile land available for settlement.

In the dark continent, as elsewhere, fortune is fickle, debasing the proud and exalting those of low degree. Tripoli traders from Bornoo in the Sudan tell of one Rabah, a tall bony Negro, recently a slave but now a ruler absolute, with an army at his back, having the latest and best repeating rifles and a treasure-house filled with gold, silver, ivory, feathers, and coral. First as lieutenant under Zebehr Pasha, formerly Egyptian governor of Darfur, then as tax collector in the Sudan, making his way with a band of fighting men to Baghirmir, southeast of Lake Chad, he not only worsted the Mahdists, but conquered the country, capturing Ashem, the Sultan of Bornoo and his capital, Kuka, on Lake Chad, and defeating Klari, Ashem's nephew, who attempted to succeed his uncle as sultan.

As in other savage lands, slavery has been common in Africa from the earliest times, but both the domestic and foreign slave-trade has been carried on throughout this continent as in no other part of the world. Perhaps it arose from Noah's curse of Canaan, and if so it comes hard on his innocent descendants; or it may be that the innumerable tribes and nations constantly at war with each other found it more profitable to enslave than to kill their captives. Then when the Mohammedans appeared as purchasers, and after them the Christians, kidnapping and slave-hunting became lucrative occupations.

In truth the African slave-trade may almost be termed indigenous; for it would appear to spring from the soil. Of three natives sent on a mission, two will often conspire against the third and sell him into slavery. Fathers sell their children, husbands their wives, and mothers their babes.

Every year are brought into Morocco from the Sudan 3,000 slave boys and girls eight or ten years old, many of whom die of home-sickness. The ruling price is $6 for a boy and $12 for a girl, the government receiving five percent on the value of the importation. As now conducted Negro slavery in Morocco is of a mild and patriarchal character, the slaves being well treated, and for the most part not caring to be free. They prefer being provided for by a master rather than to assume the cares and responsibilities of life on their own account. In all the interior cities are marketplaces for the sale of slaves but on the seaboard the traffic is conducted secretly, owing to European disapprobation; hence prices here range higher, say from $25 to $100, or sometimes even $200.

In equatorial Africa, as in Morocco, domestic slavery is a practice entirely distinct from the foreign slave trade. The former institution, where the slave remains among his friends and relatives, is kindly cared for, and relieved of the responsibility of providing for himself, is a very different thing from the traffic in human beings by the followers of Christ and Mohammed.

The three Africas, north south and central are as distinct in history and character as Egypt and Palestine, or as Phoenicia and Spain. Of the great rivers of the continent, the Nile, the Zambezi, the Orange, Congo, and Niger, the course of the last two differs not greatly from the line of the equator. Of the lakes several assume the proportions of inland seas, as the Nyassa, 350 miles long; Tanganyika, 450 miles, and the Victoria and Albert, each with a surface of about 30,000 square miles. Inland commerce at the equator usually follows the courses of the rivers, not in a continuous stream as the water flows, but in stages and sections. For example, an inland tribe having slaves, ivory, ebony, india-rubber, or barwood to sell, cannot load its boats and descend the river to a white settlement, but must hand over its merchandise to the tribe below, to be passed on to the next, and so on, the last one

selling the goods, retaining its commissions and passing on what is left to the one above, which thereupon takes its toll, until too often the amount that reaches the original shippers is little or nothing. This is a custom of long standing, and for a native to attempt to violate it means confiscation and slavery.

The staple food of the equatorial tribes is the manioc, besides which are yams, squashes, sugar-cane, and plantains. It is only in this region that the genuine Negro is found, he of the coal-black skin and curly hair and protruding lips. The people of the southern and eastern interior, not to mention those of the northern seaboard or of the southern end of the continent, have not the form and features which characterize the dwellers in the slave-yielding lands of the Guinea coast and the river Niger, but rather a brown skin, with Negro features wholly absent or but slightly pronounced. The wealth of the equatorial native consists less in what he has than in what he does not want; nature cares for him, and all nature is his; with that he is content. Usually buried with the dead African, as constituting his entire property, are pipe, knife, bowl, and bow. The black highlander grows a kind of millet, which constitutes his food, and of clothing he has none.

The Gold Coast, in Upper Guinea, was so called from the yellow metal found there, first probably by the Phoenicians, but certainly by the Dutch and Portuguese, the latter building a fort at Axim to protect the trade.

Upon the later reopening of the mines there were unmistakable evidences of ancient workings by people other than natives. Deep tunnels, in one of which was an antique bronze lamp, were discovered, while primitive peoples never dig far for anything. Though not yielding as in former days, and with a hot climate unhealthy to foreigners, the Gold coast is still largely auriferous throughout its entire extent. Besides this the rich alluvial soil responds readily to cultivation, sending forth in abundance fruits and vegetables of all kinds, while the forests abound with merchantable timber. Here are found the egg-plant, the kola nut, the betel nut, besides ginger, indigo, the pineapple, and scores of other products.

Back from the seaboard of the Gold coast is Ashantee, a vast expanse of forest land where is still much gold left. Grain, fruit, and vegetables become prolific when put into the deep rich soil, and there is some manufacturing in the way of cotton cloth, pottery, and articles in gold and silver. It is a great thing to be monarch of Ashantee, with 3,333 wives and power to cut off heads at pleasure, better than to be king of England with only one wife and no power at all. On the other hand the nobility are not so independent as the nobles of England, though some of them have 1,000 slaves and bushels of gold; for if the king covets aught belonging to a subject, he has but to cut off his head and take it. Any noble who conducts himself circumspectly is permitted once during the year to show his wealth in the streets of Coomassie, greatly to the admiration of the beholders. Care is taken, however, not to display too much unwrought gold, as that falls to royalty on the death of the possessor, and if the noble has much of it, and the king greatly needs it, the owner is liable to sudden death.

Yet more autocratic than his majesty of Ashantee is the king of Dahomey, doubly a king, for to his absolute temporal power is united the spiritual. The latter country derives quite a revenue from the duties on exported palm-oil and ivory, and on all imported articles. The king drives quite a thrifty trade in black maidens, daughters of the nobility and gentry, sent to him as gifts from their parents, and sold to his head men at good round prices, which immediately find their way into the royal pocket.

The Negro republic of Liberia, established in 1822 by American philanthropists, was declared independent in 1847, and as such was later recognized by the leading powers of the world. The climate is hot and the soil rich, all the tropical products being easily grown on the low-lying coast; while the hills of the interior are suitable for cattle raising. Metals are plentiful, though the mines are little worked. Some 18,000 descendants of slaves in the United States were here joined by 1,000,000 natives, and the result was not very flattering. The free black voters of the United States are better content with their political and social privileges in America than they fancy they would be with anything Africa can offer, preferring to sit in judgment over their former masters rather than display their talents in the land of their ancestors .

Congo Free State, with its 802,000 square miles of area or four times the size of France, lies on the equator, and with its great navigable river as a central feature. Among the products ivory and India-rubber lead; then follow cotton, growing wild, coffee, the sugar-cane, resinous and copal gums, palm-oil, piassava, cocoa, pepper, and tobacco. For timber there are mahogany ebony rosewood and teak, and for metals an abundance of copper and iron, as yet almost untouched, probably because the climate is dangerous to Europeans.

Senegambia, mountainous in places, with a low-lying coast on the north and marshlands with rank vegetation between, contains gold and other metals in abundance, and large tracts of rich alluvial land. Animals and plants, of which there are many varieties, are large and prolific, among the former being the wild-bear, lion, and leopard, and among the latter the baobab, acacia, and palm. In the Niger and Senegal swarm crocodiles and their associates, while the trees are filled with chimpanzees and others of the monkey and ape fraternity. The country is occupied by some 10,000,000 Moors and Negroes, divided into numberless tribes, who fight and steal and live on the good things the gods provide. Foreigners here obtain gold, gums, ground- nuts, India-rubber, oil, hides, feathers, ivory wax, coffee, rice, and other products.

Loango has on its seaboard a fine primeval forest interspersed with mangrove swamps, grass prairies, and a tangled undergrowth of tropical vegetation around open parks and lagoons. Here are fragrant jasmines, thickets of lianas, a kind of olive myrtle tree, ipomoeas, and for native fruits the mango and papaw, while ginger and negro-pepper likewise grow wild. The staple food of the natives is manioc, though bananas are also a favorite article of food, while ground-nuts and tobacco are freely cultivated. There are, besides the chimpanzee and gorilla, seven kinds of apes, many birds of gay plumage, and snakes of many varieties. Until a recent period there was a large traffic in slaves, India-rubber and palm-oil being now the chief commodities.

Benguela has a mountainous interior with mines of silver, copper, iron, and salt, and an abundance of animal and vegetable life. Angola, back of its border of barren sandy plain, has tropical wealth of every variety, mineral, animal, and vegetable, conspicuous among which since the decline of the slave trade are gum, wax, and ivory.

Congo has copper mines at Bembe which were early worked by the Portuguese. Malachite is also found, and in the north, iron. Then there has been reported a lake of bitumen, and in several places are garnets, rubies, and the gum-copal, which is used as a varnish. Among the flora the oil-palm is conspicuous, also on the coast is the cashew tree, while cassava, ground nuts, yams, and maize are cultivated in various districts. The king of Congo is a sorry looking monarch, his palace being a hut of

reeds, while his nobility and gentry, unable to pay a Bond Street tailor, or obtain credit, must needs go naked.

Calibar has an alluvial soil covered with bush except the small portion which is under cultivation and the rocky interior. Here are for sale bamboo, maize, plantains, sugar, pepper, yams, and ebony and other woods.

Sierra Leone produces ginger, pepper, kola nuts, and cassava, besides coffee, cocoa, and corn. The rainfall of 160 inches is precipitated during nine months of the year. On the river Gambia are several factories, or trading posts, whence come wax, hides, gold-dust, ivory, palm-oil, gum-arabic, groundnuts, and honey, though shipments are small considering the resources of the country.

During the first half of the present century a marked aversion to the presence of free colored persons existed in nearly all the states of the union, and some of them passed laws for their expulsion. It was thought by many that the best thing for the free Negroes in the United States would be to settle them in colonies on the coast of Africa. In 1815 Paul Cuffee, a wealthy and patriotic colored man, sea captain, of New Bedford, Massachusetts, sailing his own ship, carried thirty-eight passengers mostly at his own cost, to Sierra Leon, and the year following was formed the American Colonization society under whose auspices some 5,000 persons were sent to Liberia, their town being named Monrovia, in honor of James Monroe.

Ancient Ethiopia was renowned for culture and advancement when Greece and Rome were at their best. Now the Ethiopians are widely scattered, being conspicuous in the region round the sources of the Nile, in Abyssinia, and Nubia where are still to be seen remains, of their former civilization.

Abyssinia is a mountainous plateau, with metamorphic rock of a metalliferous nature as a base. The climate is delightful, and the soil fertile. Among its streams are the tributaries of the Nile, recuperated by the periodic rains falling from June till September. Almost anything can be grown, three crops sometimes being raised during the year, coffee is indigenous, and also many fruits. Conspicuous among land animals are the rhinoceros, buffalo, lion, and leopard, and in the rivers hippopotami and crocodiles. The Koran tells the story of Solomon and the queen of Sheba, who came at his bidding from Ethiopia, or Abyssinia, and presented him, among other things, with a son who was named Melech. The king summoned all the birds to appear before him; but the lapwing did not come, whereat the monarch was wroth and ordered the bird to be killed. But presently the lapwing appeared before the king and said, "I come from Saba, a queen reigning in great magnificence; she and her subjects worship the sun." Then Solomon sent by the lapwing a letter to Saba, ordering her to come at once and submit herself to him, and accept the true religion. And she came, bringing 500 men slaves and 500 women slaves, 500 bricks of solid gold, a crown, and many other presents, and submitted herself to Solomon and his religion.

The Somali, Mohammedans of Arab descent, in places settled and elsewhere nomadic according to occupation, grow crops of various kinds, raise camels, goats, and fat-tailed sheep, and collect frankincense, myrrh, and other gums, which together with other native products are exported to Arabia and India. Commerce is almost entirely in the hands of Hindu traders, who almost from time immemorial have been settled on various portions of the coast.

In the sultanate of Zanzibar is a soil which will readily produce two grain crops a year, and four of manioc, the staple food. Here also flourish the clove, cocoa-nut, nutmeg, cinnamon, and other trees. The island seems to rest on coralline reefs, and the ancient forests have to a great extent disappeared. The island of Pemba is held by Arabs in large plantations worked by slaves. The Swahili coast is low-lying and swampy, the dense tropical vegetation under a heavy rainfall and hot sun breathing a pestilential air. Here are found the copal-tree and other economic plants, the land being especially adapted to sugar, cotton, coffee, and spices. The city of Zanzibar, the next largest to Alexandria and Tunis on the north and east African coasts, is divided into two districts one, called Shangani, devoted to commerce, government, and the palaces of the sultan, the other the poor quarter occupied by porters, fishermen, and slaves. The imports, largely of cotton cloth and other European articles, reach $6,000,000 as against $1,000,000 in exports of ivory, caoutchouc, sesame seed, and cloves.

From Zanzibar the Arabs carry on a large trade with the interior in ivory and slaves. Over a wide area are planted their encampments, communication with which is kept up at intervals by caravans, well armed and supplied with articles with which to purchase ivory and the slaves to carry it. Between the arrivals of caravans at the several posts the ivory is bought up and collected, and the captives made during the tribal wars, in addition to those who are stolen, furnish the slaves.

The coasts of Somali and Zanzibar are rich in traditions as well as in things material. Here, as in Abyssinia, was one of the many alleged residences of the queen of Sheba, and at Seychelee it is related that Adam and Eve took up their abode after retiring from Eden. At Mombasa stands the fort built by Vasco da Gama in the sixteenth century.

Date and cocoanut plantations are now conspicuous. The reception room of the sultan of Zanzibar glitters with crystal chandeliers, while the walls are hung with red panels bearing quotations from the Koran in gilt letters, and the floor is covered with a thick crimson velvet carpet on which inlaid tables and gilt sofas and chairs with velvet cushions are disposed. In the sultan's harem are 150 women, loaded with costly drapery and jewels.

Chiefs of the petty provinces of the interior delight in playing the part of sultan, having learned the role by contact with the Arabs. They have their royal huts, their black harems, and hiding places for their treasures, and bluster and fight each other as men both white and black have ever done. Besides slaves and ivory, the natives here count among their valuables cattle, and metals wrought in forms of weapons and ornaments.

The Portuguese colony of Mozambique takes its name from a small coral island on which stands the provincial capital. There are other islands which export calumba root, sesame, ivory, wax, and oil-seeds, turtle-fishing being profitable in some places. On the Zambezi River are several settlements, and a native fair is held annually at Zumbo.

Sofala is a land of gold and ivory and apes. Here is yet another Hiram of Tyre and queen of Sheba country, while as with many other places, certain persons have fancied this to be the Ophir of Solomon. In 1587 a Dominican monk, Joas Dos Santos set forth for Mozambique and Sofala, spending eleven years among the Portuguese settlements of those regions. In 1609 he published a work entitled Eastern Ethiopia, in which he writes: "The merchandise from Tete goes down to Sene with the gold which is brought from the market of Massapa, in the kingdom of Monomotapa, where a large quantity is always to be met with, as the great and lofty mountain Fura (or Afura) is close by. Upon this

mountain are to be seen the ruins of buildings constructed of stone and lime—a thing which is not to be found in the whole of the Kafir country, where even the houses of the king are only built of wood and earth, and thatched with straw. An old tradition current in this country affirms that these ruins are the remains of the storehouses of the queen of Sheba; further, that this princess got all her gold from these mountains, and that this gold was carried down the river Cuama (Zambezi) to the and taken Ethiopian ocean, thence through the Red sea to the coasts of Ethiopia above Egypt, where this queen dwelt. Others believe that Solomon had these magazines built and, that here was obtained that gold of Ophir with which his navies were laden; that between Afura and Ophir there is no great difference.

It is quite certain that around this mountain range much and very fine gold is found, easily conveyed by means of this river, as is still done by the Portuguese and was done, before them by the Moors of Mozambique and Kilwa; and further, that as in these days gold is earned to India, so in former days it might easily have been taken through the Red sea to Ezion-Geber, and thence to Jerusalem."

The mountainous interior of Madagascar is bordered by forests, and contains many fertile valleys and plains where rice is raised. Iron and copper are the principal metals; there are also antimony, rock-salt, and plumbago. The flora of the island shows over 3,000 varieties of flowering trees and plants. Nearly all the fruits thrive well and many are indigenous; the inhabitants collectively called Malagasy are of Malayo-Polynesian stock, neither savage nor yet civilized. They follow agriculture after primitive methods, rice being their staple food. A long-handled shovel does the work of oxen and plow, and threshing is performed by beating the bundles of rice upon upright stones. Society consists of three classes, the andriana, or nobles; the hova, or freemen; and the andevo, or slaves. High priest as well as ruler is the king, whose palace is in Antananarivo, the capital, where rush houses are gradually giving place to structures of adobe and stone. The royal mansion and government buildings occupy the hill round which the city is built.

South Africa was originally occupied by some of the lowest types of humanity, Bushmen, Hottentots, and Bantu; nevertheless they were a happy and contented people, with satisfied corporeal wants and living in close communion with nature, while among civilized nations it would be hard to find more practical philosophy, or a nearer solution of the great problem of life,—liberty and the pursuit of happiness. In Zululand are many gods, one among whom is the creator of all and above all. These deities are responsible for everything that happens; nothing is left to chance; by proper attention to signs and omens they may know what the gods would have them do. The spirits of their ancestors afford them lesser gods, while to the Supreme Being they offer propitiatory sacrifice. Among their shrewdest and most able men are the wizard, or witch doctor, the rainmaker, the lightning controller, the ruler of the hail and other like professionals who live and acquire wealth on the credulity of their fellows. They do not in every instance claim supernatural powers for themselves, but act as mediators between gods and men. Every ill as well as every good comes from some deity, but one who may perhaps have been influenced by friend or foe; sickness and death are always the work of an enemy.

The term South Africa includes Cape Colony, Natal, Orange Free State, and Transvaal or the South African Republic. On the eastern side of this southern extremity, of the continent are Gazaland, Sofala, Mozambique, and Zanguebar; on the west Benguela and Guinea; in the interior Bechuanaland and Congo Free State, and stretching far away to the north the Great Desert.

Traces of occupation by a people superior to the present aborigines are found between the Zambezi and Limpopo rivers. Except on the seaboard, where there is some malaria in places, the air is dry and healthy. The cool season is from May to November; a hot, moist, and enervating atmosphere prevails during the remaining months. A mean temperature of from 60 degrees to 70 degrees extends over large areas, rising above or falling below this at various points. The average annual rainfall at Grahamstown is 32 inches; Pietermaritzburg 30 inches; Capetown 23 inches; Graaff Reinet 13 inches; Worcester 11 inches; Mossel Bay 12 inches; Simonstown 27 inches.

Before the coming of the Europeans South Africa swarmed with game, the lion, leopard, elephant, rhinoceros, hippopotamus, giraffe, zebra, antelope, buffalo, and many others of strange form and name being common. Then there are the hyena, wolf, wild dog, wild hog, baboon, and of birds, the partridge, pheasant, guinea-fowl, ostrich, and bustard.

On the coasts of South Africa are grown sugar-cane, tobacco, rice, coffee, and vegetables of many kinds, and in the interior flourish all the grains known to civilization, the uplands being devoted to grazing. The vine is prolific, the average yield in the best Cape districts being 380 gallons of wine to 1,000 vines. Land and labor are cheap, and irrigation encouraged by the several governments. Forests are few and good timber scarce. Mining, the most prominent industry, is mainly in the hands of large companies the, diamond fields of Kimberley being the largest in the world, while there are gold and silver in the Transvaal, and copper in Namaqualand.

For seventy miles along the Vaal river 1000 diamond-diggers gather stones to the value of £50,000 a year. Coal is plentiful on the upper plains, in the Stormberg Mountains and on the Zambezi.

Vasco da Gama was on the Natal coast on Christmas day, 1497; the Dutch were there in 1595; and in 1620 appeared the English. A Dutch settlement was established at Table Bay by 100 Hollanders under Jan van Riebeeck in 1651; trade with the Hottentots was opened; grain, fruits, and the vine were introduced from northern lands; mining was attempted but without important results; success in agriculture was more pronounced. The rule of Van Riebeeck was followed by that of other Dutch commanders and governors, and in 1685 Huguenots settled in Drakenstein and French Hoek.

Permanent British occupation began in 1806, after wars with Holland and France, and the inevitable slaughter of the aborigines was inaugurated by the first Kafir war, as it was called, in 1811, at the end of which it is needless to add the English found their territory greatly extended. A second Kafir war in 1819, and a third in 1835, gave the English all they desired at that time of South Africa. Slavery was abolished in 1834, about one third of the value of the 35,000 slaves then in the colony being nominally allowed to the owners, but the greater part of it found its way into the pockets of government agents. So disgusted were the farmers, especially the Dutch Boers with British rule, that more than 10,000 of them abandoned their possessions and crossed the Orange river.

Cape Town became the metropolis, with a population in 1895, including its suburbs, of more than 100,000. It is a handsome city occupying a beautiful site at the head of Table Bay and near the foot of Table Mountain, the old-fashioned houses formerly clustered under shelter of the fort which Van Riebeeck erected in 1652, being replaced by buildings of modern design. It is well paved, well lighted, with a plentiful supply of water and with ail the appendages of a city of metropolitan rank. There are hotels, newspapers, streetcars, post and telegraph offices, churches, hospital, government buildings, railway, and breakwater. There are also the public library, university, and museum, a government

house, and botanical gardens. The houses of parliament were completed in 1886 at a cost of £220,000.

The breeding of Spanish merino sheep was begun in Bredasdorp by J. F. Reitz in 1812, and in the mountains not far distant were raised horses and mules of excellent stock. Beaufort West has many fine sheep-walks, and the lands around Port Elizabeth, besides containing minerals, are of the best quality both for cultivation and pasture. Grahamstown is a pretty place, surrounded by a fertile country. The manufactories of South Africa are numerous but not large; wages are good, varying from the equivalent of $1.25 a day for laborers to as much as $3 or $4 for miners and mechanics, farm labor being mainly performed by natives, who receive from $2 to $4 a month with rations. In 1854 an epidemic, arising from night malaria, carried off 70,000 horses, thus seriously crippling an important industry. Ostrich farming is a prominent and fairly profitable occupation.

Durban the seaport, and Pietermaritzburg the capital of Natal, with populations of somewhat less than 30,000 and 20,000 respectively, are similar in most respects to other colonial towns of English origin. Each has its town-hall, costing about £40,000, besides markets, hospitals, churches, and other buildings of a public character.

The people of Pietermaritzburg are justly proud of their park and botanical garden, the latter costing £60,000. The revenue and expenditure of Natal are about £1,000,000 per annum; imports £2,000,000 and exports £1,000,000. A considerable portion of the imports, however, are for adjacent colonies.

In establishing themselves at Natal, the English deemed it better to conciliate the powerful Zulu chief, Chaka, than to fight him. By means of gifts and a pacific attitude, they obtained permission to settle at Durban in 1823. Then followed the usual aggressions that attend the so-called progress of civilization and Christianity in these distant lands. At the close of the Zulu and Transvaal wars the native warriors were few in number and shattered in strength.

Natal is rich in fertile soils and verdant landscapes. Rising in terraces from the seaboard to a grass-covered plateau 4,000 feet high, well watered by streams and possessing coal and other minerals in abundance, it is a land of almost limitless possibilities. The colony exports annually gold to the value of £250,000, Cape Colony £7,500,000, and Transvaal £3,500,000. Witwatersrand, the most promising of all the Transvaal gold districts, is an undulating plain, 6,000 feet above sea level. The principal discoveries were made between 1854 and 1885, at which latter date the government declared nine farms adjacent to be portions of the public gold-field, whereupon the district was rushed by diggers.

The Orange Free State, 4,000 to 5,000 feet above ocean's level, is mainly a stock-raising country, the chief town being Bloemfontein. The Great Karroo plateau is between the Orange and Molopo rivers, and of this the continuation is Bechuanaland. Mashonaland, in the Chartered Company's territory, is a gold-yielding district, and though hardly to be compared with Witwatersrand, is honeycombed with ancient workings. North of the Zambezi the soil is fertile; the Milangi plateau has an annual rainfall of from 60 to 70 inches.

The Orange country has for basis of wealth abundant agricultural, mineral, and pastoral resources. The surface consists for the most part of a series of undulating treeless plains 4,000 or 5,000 feet

above the sea, sloping northward to the river Vaal and southward to the Orange River, across which are the diamond fields of Kimberley and Griqualand West. Coal is here utilized and in the drift deposits along the river-beds are found pebbles of value and precious stones. Where once were the elephant, lion, rhinoceros, and giraffe are now sheep, goats, horses, cattle, and ostriches.

Mainly on account of the hatred entertained for the English was founded and built up by the Hollanders the Transvaal republic, Andries Pretorius, in 1848, placing himself at the head of the emigrant Boers then in the country, among the later presidents being Burgers and Kruger. The Lydenburg gold mines in the north, and the diamond developments in the south directed attention to the country, stimulated railway building, and the growth of towns, especially that of Pretoria, the capital, which has its government house and other imposing structures, as the raadzaal, or parliament house, a fine building for an African colony costing £138,000. To the, national bank in the same vicinity is attached the state mint There are scores of smaller towns, mining and agricultural, of which it is not necessary here to speak.

Transvaal, or the South African republic, is a platter-shaped plateau, for the most part with a dry invigorating atmosphere and richer in mineral, than in agricultural resources. Here are nearly all the metals in abundance, precious or otherwise, besides diamonds and other beautiful stones these vast and undeveloped treasures being found embedded in porphyry, quartz, clay slates, and conglomerates. There are some forests, and much bush and grass land, stock-raising being the chief occupation of the Boers settled hereabout. Yet in some places two annual crops can be raised, and elsewhere tobacco, semi-tropical fruits and the vine thrive well. Among native animals are the elephant, giraffe, zebra, rhinoceros, and others, all of which are gradually giving place to beasts of northern domestication.

To the Transvaal gold-fields Johannesburg, with a population in 1895 of something less than 50,000, owes its rapid growth and lively traffic. Sheep and cattle-raising were the main objects that brought men to these parts, and when gold was found in 1854, the government would not allow prospecting, lest the influx of foreigners should disturb the healthier industries . The restriction was removed, however, and in 1872 a reward was offered for the discovery of new and profitable fields. In 1886 the Sheba mine was opened and brought into the district 10,000 miners. Then was started the town of Barberton, and hundreds of wild schemes and limited liability companies were floated. The output of gold for 1894 was about 2,000,000 ounces.

The diamond fields of South Africa are at Griqualand West, near the southern extremity of the continent, and about equidistant from the east and west coasts and Port Elizabeth, which is on the same parallel as Cape town, and about the same as Adelaide, Australia, on the one side, and Montevideo, South America, on the other, namely, south latitude 34 degrees. The many small original claims have been consolidated into four principal mines, the Kimberley, Dutoitspan, De Beers, and Bultfontein. In order to meet the demands of all comers, the ground was at first cut up into strips of 31 feet square, for which a monthly license of ten shillings was paid, some of these little patches selling within a few weeks for 100 apiece, and within a few years for £10,000 or £15,000. The four mines were later controlled by two companies, employing several thousand miners, superintendents, clerks, brokers, and storekeepers.

In 1854 the country was nominally held by the Orange river sovereignty, and occupied by the followers of a Griqua chief named Waterboer. Later the sovereignty became a Dutch republic, and the

country being open, bleak, and inhospitable, little attention was given to it, until in 1867 John O'Reilly, a travelling trader, saw at the house of a Boer named Niekerk a stone which attracted his attention. It was among some pebbles with which Niekerk's boy was playing. O'Reilly proposed to have it tested, and should he sell it, to return to the owner half the proceeds, which was done, the governor, Sir Philip Wodehouse becoming the purchaser at £500. Great was the excitement which followed, and soon the country was alive with prospectors and diggers, joint stock companies being formed at Cape Colony and Natal to search for diamonds in Griqualand West and especially on the Vaal river. A diamond was found in the plaster of a farm house at Dutoitspan, and the stone which led to the discovery of the Kimberley mine was picked up by a young man named Rawstorne, in the same vicinity. Another large brilliant, purchased in 1869 by a Dutchman from a Griqua native for £400 in goods, was sold soon afterward for £10,000. It was called the Star of South Africa, and has since been valued at £25,000.

A dispute arose between Waterboer and the Free State as to the ownership of the diamond fields, which were all within an area of three or four miles. Thereupon the British government stepped in, obtaining in 1871 a cession from Waterboer of his rights, and in 1876 paying the Free State £90,000 for its claim. Then set in an era of diamond mining in South Africa which virtually put an end to the industry in Brazil, just as the Brazilian developments had closed all but the richest workings in India. Up to 1895 the yield from South African diamond fields was thirteen tons, valued at £60,000,000. The diamondiferous soil of these parts changes at a depth of 100 or 150 feet from a soft, loamy, yellowish earth to a hard blue clay, the real matrix, which crumbles on exposure to the air. The mass as taken from the mine, after being thus disintegrated, is reduced to such small compass by rotary washing machines that the precious stones are readily discovered.

The Kimberley mine, first known as the Colesberg Koppij, though not so large as the De Beers, one mile distant, is the richest of them all. The claims staked out in January, 1871, had in 1874 reached a depth of 100 feet, when water and caving became troublesome.

Open working on the De Beers mine reached a depth of 450 feet in 1885, and later in underground working a depth of 1,200 feet was attained. The blue earth is raised by engines, and carried to a hill for the exposure which causes disintegration. Open workings in the Bultfontein mine nearby have reached a depth of 700 feet. The Dutoitspan mine, also close at hand, has produced the largest stone, 404 carats, or more than three ounces; the largest diamond from the De Beers mine was a yellow stone weighing 302 carats, whiles the most valuable one, called the Porter-Rhodes, a white octahedron weighing 150 carats and valued at £60,000, came from the Kimberley.

Gambling attended early diamond digging in Africa as with early gold digging in California. There were the usual games, roulette, rouge-et-noir, trente-et-quarante, and faro, conducted openly in houses of good repute, one saloon making £40,000 within a few months. With government prohibition at Kimberley, gamblers betook themselves across the Orange Free State line to Wessel's farm, near Dutoitspan, which place later became notorious for its illicit diamond traffic. Race-course lotteries were next in vogue; but public gaming at the diamond mines was neither heavy nor long protracted. The illicit traffic in diamonds continued, however, with increasing proportions until in 1882, when stringent laws were passed and a detective agency established, it was estimated that not more than half of the diamond yield had reached the owners of the mines. The precautions since

adopted have rendered stealing almost impossible, the miners being stripped and closely examined at the end of each day's work.

The town of Kimberley, with 30,000 people, to which may be added Beaconsfield with 10,000, has been built with little regard to regularity of streets; yet it contains some presentable edifices which have taken the place of those at first constructed of corrugated iron, notably the high court building of Griqualand West, and the public library. Never was there so much mining in progress throughout the world as at the present day, when aside from American and Australian outputs, a steady stream of gold is pouring into London from Africa, causing an excitement as deep if not as boisterous as any South Sea or Mississippi bubble. It is claimed for the principal mines that they contain true fissure veins, and if this be the case, no present estimate can be formed as to their prospective yield.

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Chapter the Eighteenth: Australia and The Hawaiian Islands

Where is the Austral Fatherland?
Behold it here, that mighty land!
Where Tasman's island sleeps at ease,
Far north toward the Timor seas;
From the great barrier's coral shoals,
To where the Indian ocean rolls;
From coral sea to ocean sand—
That is the Austral Fatherland.
—Australian Marseillaise

He has even gone so far as to reproach me with my poverty—a charge truly acceptable to a philosopher, and one to which I readily plead guilty. For poverty has long been the handmaid of philosophy; frugal, temperate, contented with little, eager for praise, averse from the things sought by wealth, safe in her ways, simple in her requirements, in her counsels a promoter of what is right. No one has she ever puffed up with pride, no one has she corrupted by the enjoyment of power, no one has she maddened with tyrannical ambition; for no pampering of the appetite or of the passions does she sigh, nor can she indulge it. But it is your fosterings of wealth who are in the habit of perpetrating these disgraceful excesses, and others of a kindred nature. If you review all the greatest enormities that have been committed in the memory of mankind, you will not find a single poor man among the perpetrators; whilst, on the other hand, in the number of illustrious men hardly any of the rich are to be found; poverty has nurtured from his very cradle every individual in whom we find anything to admire and commend. Poverty, I say—she who in former ages was the foundress of all cities, the inventress of all arts, she who is guiltless of all offence, who is lavish of all glory, who has been honored with every praise among all nations. For this same poverty it was that, among the Greeks, showed herself just in Aristides, humane in Phoenician, resolute in Epaminondas, wise in Socrates, and eloquent in Homer. I could, indeed, raise an argument with you about the very name itself, and I could show that none of us are poor who do not wish for superfluities, and who possess the things that are necessary, which, by nature, are but few indeed. For he has the most who desires the least; he who wants but little is most likely to have as much as he wants.

—Apuleius

About the middle of the sixteenth century the captain of a French vessel voyaging in the southern seas landed on the western coast of Australia, not for purposes of trade or settlement, but merely to gratify his curiosity. The captain must have happened on an unfavorable spot; for his report was in substance as follows: Extending in all directions as far as the eye could reach were dense forests of gum-exuding trees, in which were neither fruits nor herbs nor anything that would support existence. There were strange looking animals with short fore-legs and long sinuous hind-legs, carrying their young in pouches and sitting squat on the ground, from which, when startled, they rose with tremendous leaps, jumping twenty feet or more at a single bound. As to the natives, they were so nearly akin to the beasts in habits and appearance that it was doubtful whether they should be classed with the human or brute creation. While this was the first recorded discovery, there are allusions at least as early as the days of Alexander to a Terra Australis, or south land, at some future day to be revealed. In the writings of Strabo and Pliny there is also mention of this mysterious region, while Ptolemy believed it to be the southern bound of the Indian Ocean, which he supposed to be an inland sea. Such were the popular notions of Australia until after the close of the Middle Ages, though travelers in China, and especially Marco Polo, brought back reports of a vast insular continent toward the southeast.

The accidental discovery of Torres, who early in the seventeenth century sailed through the strait which bears his name, was followed by Dutch and English explorations, prominent among which were those of Tassman, Dampier, and Cook. On the 20th of January, 1777, the last named of these navigators planted the British flag on the shore of Botany Bay, so called by one of the savans of the expedition on account of the number and novelty of the botanical specimens in the neighborhood; the extensive coast line explored by Cook, together with the country back of it, receiving the name of New South Wales. Returning homeward, the latter spoke in glowing terms of the sunny skies, the pure, elastic atmosphere, and the wondrous plant-life of the Austral land, his statements leading to further expeditions and to further discoveries.

After the loss of her American colonies, Great Britain was in need of a place to which to transport the criminals formerly shipped to the western plantations and settlements. Botany Bay was the spot selected, mainly through the representations of Cook; and thence went, toward the close of 1787, a fleet of eleven sail, with more than a thousand persons on board, the most of them being convicts. Arthur Phillip, the first governor of New South Wales, was in charge of the expedition. But the site was found to be unsuitable; the anchorage was unsafe; fresh water was scarce, and the narrow strip of open land that skirted the shore was surrounded with swamp and forest. Proceeding a few miles northward in search of a more favorable spot, Phillip entered Port Jackson, named after the sailor who first described it, and then supposed to be a small, unsheltered inlet. But after passing between its lofty heads, he found himself in one of the most spacious and beautiful harbors in the world, its waters widening into a broad, unruffled expanse, studded with wooded islets and indented with rock-encircled coves. To the inmost basin of this harbor the flotilla was transferred; tents were erected on the shore adjacent; and thus was founded, on the 26th of January, 1778, the city of Sydney, the oldest of Australian settlements and at present the second in population and wealth.

Other colonies were presently established—those later known as Victoria and South and West Australia—and other settlements founded, as Melbourne on Hobson bay and Adelaide near the gulf of St. Vincent, though for more than a quarter of a century the inhabited portion was limited to the plain adjacent to Sydney, some fifty miles in width, between the Blue mountains and the shore of the south

Pacific. Of the earlier explorers, many lost their lives in this almost impassable range, covered with trackless forests to a height of more than 3,000 feet, and intersected with precipitous ravines. Nevertheless explorations were continued, and are still continued, the results of which, though yet far from complete, may thus be briefly stated.

The longest line that can be drawn in Australia is from east to west and 2,600 miles in length, the extreme width from north to south being nearly 2,000 miles, and the area some 2,000,000,000 acres, or about the same as that of the United States excluding the territory of Alaska. In its 9,000 miles of shore line there are few good harbors, except on the northern side, where the Gulf of Carpentaria forms an opening 400 miles long, and as much in width, though less protected than other and smaller inlets. It is probable that in an age not far remote, as geological ages are computed, the interior was the bed of an inland sea, the mountains forming the cliffs and plateaus of many island groups, such as those of the Pacific archipelagos. In support of this theory are the thinness of the soil and the erratic course of the rivers, several of which, after running far inward from the coast ranges, lose themselves in swamps or shallow lakes, their channels in the dry season become mere chains of ponds. At least two-thirds of the surface is little better than desert. In the eastern section are by far the most valuable lands, and in general terms it may be stated that there are no large areas that can be utilized, even for the grazing of sheep, more than a few hundred miles from the coast.

In a continent extending over nearly 40 degrees of longitude and 30 of latitude there might be expected a great diversity of climate; but such is not the case, except as to rainfall, which varies from 40 inches or more on portions of the coast to an occasional sprinkling in the interior deserts. In Australia it is, as the saying goes, always a flood or a drought, the latter sometimes lasting for two or three years in succession, and attended with enormous destruction of crops and livestock; for there is no irrigation worthy of the name, nor is irrigation possible in a land where the rivers are few and small, and where snow is seen only on the highest mountain peaks. The mean annual temperature of Sydney is 66 degrees, of Melbourne about 58degrees; but in both these cities the thermometer occasionally rises above 100 degrees in the shade, and far above that point in the interior, hot winds laden with dust and thence called “brickfielders" blowing for two or three days at a time. These are often followed by violent electric disturbances accompanied with torrents of rain, one of the severest ever known occurring in January 1886, when towns were swept out of existence in a night, and their neighborhood for many miles around was ablaze with globes and streams of light moving in waves like an aurora, but with awful intensity. In other respects the country is remarkable; Christmas is the Australian midsummer; in winter the trees shed their bark instead of their foliage, the leaves expanding vertically so as to afford but little shade, while there are fruits that grow with the stone outside, and animals that combine the properties of the bird and beast creation.

Of the 10,000 species of plants included in the Australian flora there are none that will support life, except wild fruits and edible roots, even these being few. The forests are of vast extent, and in places the forest scenery is strikingly magnificent, especially in the Blue Mountains, where is a landscape view with waterfalls approaching in grandeur the famed Yosemite of the Californian sierra. In addition to the omnipresent gum-tree, there are many varieties of merchantable timber, as the Moreton bay pine, the iron-bark, the oak, red cedar, rosewood, sandal-wood, and satin-wood. Of animals the kangaroo, opossum, dingo, and native bear are the most common, the last being undersized and resembling a sloth in its habits. Wild ducks and other aquatic fowl are plentiful, the black swan being here so little of a rarity as to belie the Latin proverb. The emu, now almost extinct,

resembles somewhat the African ostrich; there are countless swarms of noisy parrots and cockatoos, some of the former exceedingly beautiful; but more beautiful than any is the lyre-bird, belonging to the same order as the bird of paradise, and so-called from its tail feathers, which spread in the form of a lyre. The coast and inland waters of Australia, and especially those of New South Wales, are abundantly stocked with fish. With metals and minerals, both precious and useful, the country is well supplied, and these are as yet but in the infancy of their development.

From about 1,000 in 1787 the population of Australia had increased to 175,000 in 1851, at which date there returned to its shores, among other disappointed gold-seekers from California, one Edward Hargraves by name. Happening on the neighborhood of Summerhill creek, in the Macquarie plains, a few leagues north of Bathurst, he observed there geological formations closely resembling those which he had seen in California placers, and selecting the most promising spot, straightway began to dig.

The stroke of his pick has become historic, and has also been exceedingly profitable; for it has resulted thus far in the addition of $1,750,000,000 to the worlds stock of the precious metals. A few months later other fields were discovered, as those of Ballarat, Bendigo, and Anderson creek, all within a hundred miles of Melbourne. There were disclosed in New South Wales, the deposits known to exist many years before, but kept secret for fear of their effect on a penal colony. The result of these discoveries was similar to that which was witnessed in California two or three years before, settlers from far and near deserting their farms and shops by thousands to search for the treasure which all men covet. The news was quickly spread throughout the world, and from a hundred ports ships laden with passengers, stores, and implements were headed for Hobson bay, where presently were repeated the scenes of 1849 in the city and harbor of the Golden Gate.

Victoria has produced about 80 percent of the entire yield of Australian gold. New South Wales contributing less than 13 percent, though in the latter colony the formations in which gold is usually found cover an area of 70,000 square miles. But her capitalists are loath to venture their money, and her miners and metallurgists have much to learn. Says the under secretary of the mining department in a recent report, "When account is taken of the number of mines standing idle because we do not know how to treat the ore, and the value of the metals that are wasted in the treatment of ores through ignorance of the methods by which such metals could be saved, some idea may be formed of the amount which our output might under favorable circumstances be reasonably expected to reach."

Among historic nuggets the first one was found by a sheepherder in New South Wales in 1851. It was sold for £1,000, or about one-fifth of its value, for it weighed more than 100 pounds; but this was perhaps all the better for the shepherd, who within a few weeks returned to his task after expending the entire sum in carousing, as is squandered nearly all the money earned or otherwise obtained by Australian shepherds. More sensible were the two laborers who a score of years later, while resting beneath a tree in one of the Victoria gold fields, chanced on a £10,000 nugget lying loose, and straightway lodged it in a bank. Sarah Sands was the name given to one of the largest lumps unearthed at Ballarat, weighing 150 pounds and worth more than £6,000, though a 184 pound nugget is said to have come from that camp, while rumor hath it that in New South Wales was found in 1872 a lump of solid gold weighing 640 pounds. But here we will stop; for nugget stories, like fish stories must be taken with certain grains of allowance.

While the alluvial gold fields of Australia have for the most part been abandoned, quartz-mining maintains a diminished but very considerable yield. Victoria still promises to add largely year by year

to the £270,000,000 already produced in that colony, ores assaying less than a quarter of an ounce to the ton being worked at a profit under careful treatment and honest management. In New South Wales it is the belief of mining experts that the surface of the country has been merely scratched, and certain it is that new discoveries are constantly being made in localities supposed to have been thoroughly exploited. Many companies are working in a quiet way and paying handsome dividends, about which nothing is said. Not long ago 115 pounds weight of gold was extracted from 10 tons of rock, a slab of vein stuff that weighed about a quarter of a ton yielding £2,000. In another mine, from 436 tons of ore were produced 27,000 ounces, valued at £93,000; but these are of course exceptional instances. Queensland had in 1895 one of the largest gold mines in the world, producing to that date about 60,000,000 ounces and paying as much as £1,000,000 a year in dividends. Mount Morgan, it is called, the location being south of the town of Rockhampton. Of ore yielding from three to twelve ounces there were said to be many millions of tons in sight, though the gold was so finely distributed as to be invisible to the naked eye. In the peninsula of Cape York, not far from the extreme north-eastern point of Queensland and of Australia, there are believed to be deposits of the precious metals still awaiting the advent of the prospector and the capitalist, far richer than any yet developed.

New South Wales takes the lead in production of silver and silver-lead ores, exporting to the value of some £3,000,000 a year, apart from those which are worked at home. Between 1886 and 1892 there were disbursed by the Broken Hill mines, accidentally discovered by the boundary rider of a sheep farm nearly, £4,000,000 in dividends, or at the rate of £260 to each £9 share of stock, the total yield up to the latter date being 36,500,000 ounces of silver and 150,000 tons of lead. If such results had been achieved in the mines which have brought poverty on thousands of Californians, the world would never have heard the last of it; yet while the Comstock lode is world-famous, there are comparatively few who have heard even that silver mines exist in the Australias.

The total production of copper, up to 1895, mainly from the Burra Burra and Moonta mines in South Australia, was valued at £28,000,000, the colony exporting in former years a vast amount of high-grade ores, while Queensland was also a large producer; but with a fall in copper from £170 to less than £50 a ton, and also through the manipulation of speculative syndicates, the yield has greatly diminished. Tin worth £600,000 is produced in a twelve-month, and of this a considerable proportion is shipped in ingots to the United States. In New South Wales alone there are more than 100 coal mines, whose product has already realized more than £30,000,000, the annual output varying from 3,000,000 to 4,000,000 tons a year. The best mines are in the neighborhood of Newcastle, a seaport north of Sydney, the average price of coal at the mouth of the pit not exceeding the equivalent of $2.25 a ton, though the earnings of the miner are much larger than in the United States.

Among the free settlers who landed in Sydney in 1803 was Captain John Macarthur to whom, as is related, King George III presented ten fine merino sheep. Macarthur had travelled much, in Saxony among other lands, and he observed that Australian grasses resembled closely those of that famous wool-growing country. Purchasing, therefore, a few choice rams and ewes imported from Cape colony he secured a tract of land and applied himself to the business of rearing fine-wool sheep. Here was the inception of the greatest of Australian industries, Macarthur's score or two of sheep proving to be many a golden fleece; for there are now at least 120,000,000 sheep in Australia, representing, with the stations or farms on which they are pastured, a value of £450,000,000. Nearly half this number are in New South Wales, and here as elsewhere are many squatters, as they are termed, with incomes

of from £20,000 to £100,000 a year, while of a pastoral king who is the owner of 30 stations in various counties and colonies, it is said that his annual revenue seldom falls short of £200,000. Among the larger class of squatters man who makes less than £10,000 a year considers himself in danger of the almshouse, 50,000 acres being considered as quite a small station, while there are not a few of 1,000,000 acres or more, leased from the government at an average yearly rate of less than a halfpenny an acre. As a sheep can be fed on five or six acres and will yield at each clip several shillings' worth of wool, it will be seen that there is room for profit in the business. But losses are frequent and severe; in seasons of protracted drought a band of 2,000 or 3,000 sheep can be had for the asking, without money or price, by anyone who will drive them away; for there is neither food nor water to keep them alive. Moreover, the rich Australian squatter is a man of extravagant habits and much given to hospitality, expending yearly many thousands of pounds on his guests, his family, and himself. Yet he may have begun his career with only a few hundred pounds of capital, while some have begun with nothing, taking up land and purchasing a flock of sheep on credit.

Cattle farming, though on a large scale and yielding fair returns, is a less frequent and profitable industry. There are about 12,000,000 horned cattle in Australia, or more than three per capita of the population, a larger proportion than in any other of the old or new world continents. While large quantities of frozen and tinned meats are shipped to Great Britain, yet larger quantities go to waste, stock being killed by millions in seasons of drought, and sold for whatever their hides, pelts, wool, and tallow are worth. A single firm in New South Wales has facilities for handling 1,500,000 carcasses a year, and there are many smaller establishments; for the growth of this industry is limited only by the demand. After providing for local requirements, at least 250,000 cattle and 5,000,000 sheep could be exported yearly in the form of meats from the natural increase in flocks and herds.

The total value of all agricultural products varies from £25,000,000 to £30,000,000 a year, or an aver age of some £3 per acre under crop, wheat ranking first with a production worth £6,000,000; maize about £1,500,000, and barley, oats and other cereals £2,500,000; while of hay the yield is worth £5,000,000 and of vegetables £3,500,000.

Of wheat 10 bushels an acre is considered a fair crop; of maize 25, and of oats 20 bushels. There are few large grain farmers in Australia, most of the agricultural holdings being less than 150 acres, while in New South Wales, the oldest of the colonies, not one percent of its area is under cultivation. Most of the land is leased at a nominal rent to men engaged in the raising of livestock; but the leases are short, and all pastoral districts are subject to preemption by bona fide settlers at moderate rates and on payments long deferred. Of fruits there is an enormous crop, the product of orchards and vineyards being estimated at £4,000,000 a year, though for want of markets, much of it is fed to hogs and more; is left to rot on the ground. Manufactures, though rapidly increasing, are not as yet of large amount, and almost entirely for home consumption. But of the resources, industries, and commerce of the various colonies further mention will be made elsewhere in Miscellany of this chapter. Meanwhile let us turn to the cities and towns of the southern continent, some of them already of metropolitan rank.

From a mere convict settlement, founded as I have said in 1788, Sydney has developed into a city of 425,000 inhabitants, and with a large volume of commerce, industries, and wealth, imports and exports exceeding £50,000,000 a year, while the assessed value of property is at the rate of 500 per capita, and money is at times so plentiful in the banks that they refuse to pay interest on new deposits. "The city of a hundred bays" it has been called; nor is the title undeserved; for in its harbor, extending

fifteen miles in one direction and nine in another, are innumerable sheltered coves. On one of these, named Sydney cove, near the head of which is the business center was built, the Circular quay, the largest of many wharves, and with accommodation for scores of ships. While there are many narrow and tortuous streets, flanked with the old-fashioned buildings in which the earlier colonists were content to dwell, others, laid out on regular lines, are bordered with handsome and costly structures, granite and polished marble being largely used among other ornamental details, betokening the wealth and taste of the community. There are many beautiful suburbs, and parks and recreation grounds are numerous, chief among them being the Domain, with its sightly botanic gardens and aviary, where nature and art combine in forming one of the most attractive public resorts in the world.

In what is known as the inner Domain, overlooking the harbor and in the midst of ornamental gardens and park-like scenery, is Government house, designed in part by the architect of Buckingham palace. In this residence of the viceroy, resembling externally a castle rather than a viceregal mansion, the state apartments are tastefully decorated, and the private rooms furnished with due regard to comfort and elegance. Most of the modern public buildings are in imitation of the classic style, though somewhat florid, especially the town hall, in which is the largest assembly room in Australia, capable of seating 5,000 persons. The post-office is a stately edifice, 353 feet in length, 110 feet at its widest point, and surmounted by a tower whose summit is 245 feet above the pavement. Its cost was about £300,000, and in design it is largely individual, as are not a few of its neighbors; for in Australia sameness and deformity of plan are not considered, as in the United States, essential to government architecture. The Lands office, on which £200,000 was expended, is a freestone structure of the Composite order, 200 by 280 feet, fronting on four thoroughfares, surrounded by a handsome peristyle and capped with a large octagonal dome. For the off ices of the colonial secretary and the secretary of public works was erected at an outlay of £130,000 a building which for symmetry of proportion and elegance of detail may be termed the architectural gem of the metropolis. The museum, with its mineral and other collections was designed, as a miniature reproduction of the British museum; the Catholic cathedral is the finest of church edifices and the university is a Gothic composition with a spacious and lofty hall whose roof presents one of the finest specimens of the carver's art.

There are many tasteful villas in the outskirts of Sydney, and in the city itself are imposing business blocks, with shops and hotels that would be no discredit to a European metropolis, though the days are not long gone by when there was not a single hostelry ranking above the second class; not a single restaurant of any kind, nor a single mile of cable-road.

Of late the people have awakened in a measure from the lethargy of earlier days. Population has more than doubled within the last quarter of a century, and wealth has increased three or four fold, the capitalized value of real property, including the immediate suburbs, exceeding £120,000,000 and the rental £6,500,000. Yet, as compared with the Americans, and even with neighboring communities, they are an easy-going and somnolent folk, lacking in enterprise and ambition. Between three and four o'clock business is over for the day, whereupon everyone devotes himself to his favorite recreation; some to the cricket field in Hyde Park, others to yachting or boating and yet others, to driving or horseback riding. Public holidays are numerous and universally celebrated, while never a weekday passes in the summer season but steamers laden with holiday makers speed across the harbor to some favorite picnic ground. Living is cheaper than in the United States, so that a bachelor

can get along comfortably on £100 a year, and on £150 he may marry if so inclined, his wife expending on herself not more than £15 or £20 a year, and with that sum dressing in neater and more elegant attire than the daughter of a millionaire in some countries. Sydney is one of the most quiet and orderly of towns; for while a large proportion of the inhabitants are the offspring or descendants of convicts, these are among the wealthiest, best educated, and best behaved of citizens, their estates coming largely by inheritance from men who, after serving their sentence, received grants of land, which after the gold discovery commanded fabulous prices.

Brisbane, the capital of Queensland, is the daughter of New South Wales, both city and district, the latter five times the size of the United Kingdom, belonging politically to the mother colony until 1859. From 25,000 inhabitants at that date, the population of Queensland has increased to more than 500,000, about one-fourth of whom are residents of Brisbane and its suburbs on the river of that name, not far from its outlet into Moreton bay. While there are no very imposing edifices, there are many buildings of generous proportions and sightly aspect; nor is there anything wanting that is essential to social or business life. The clubs and churches, the educational, philanthropic, and charitable institutions are worthy of a larger and older community; there are a score of at least of daily or weekly journals; there is a large and rapidly increasing commerce, and there is regular steam communication with other Australian ports, especially with Sydney, some 500 miles to the south.

In 1835 a party of adventurers crossing Bass strait from Tasmania, or Van Diemen's land as then it was called, built on the opposite shore, near the banks of a small stream named the Yarra Yarra a cluster of wooden huts, supporting themselves by fishing and raising such meager crops as the neighboring soil would produce. Thus was founded the city of Melbourne, the metropolis of the Australias, and among the largest and most thriving commercial seaports in the world, from whose harbor of Port Phillip—resembling rather an inland sea, for in its center no land is visible—gold has been shipped to the value of hundreds of millions of pounds. Melbourne with its suburbs, where are now the homes of some 550,000 people, was described by Anthony Trollope as "one of the most successful cities on the face of the earth;" and well it deserves that title; for beneath its clear, bright sky is everywhere the appearance of prosperity and comfort,—spacious and well kept thoroughfares, parks, and pleasure grounds lined or surrounded with elegant and costly residences, business blocks, banks, and public buildings, in which is represented no small portion of the £650,000,000 of capital accumulated in the Australasian colonies.

The city proper is built on the slopes and summits of two parallel hills, together with the valley between them, where is the business quarter, with its principal thoroughfares go feet wide and a furlong apart, between which are narrower streets. Around the city and within a radius of five or six miles from the general post-office is a circle of populous suburbs, many of them forming independent municipalities, and not a few with streets and shops almost as busy as those of the business center. Parks, squares, and gardens are numerous, and some of them are lavishly decorated, Fitzroy gardens, for instance, in the very heart of the metropolis, containing avenues of oak and elm separated by Fern-tree gully, and with summerhouses, fountains, ponds, miniature Greek temples, and replicas of famous statuary. There is also vacant land for sale to those who are willing to pay £40,000 or £50,000 for half-acre allotments, which sold in 1837 for £35 apiece. Thus it is that the capital of Victoria, with only one-tenth the population of the capital of Great Britain, occupies an area nearly half as large.

No city of its size, and few cities anywhere in the world, contain so many handsome public buildings as Melbourne; San Francisco, for example, with similar origin and much greater natural advantages, being altogether unworthy of comparison in this and other respects. The oldest and one of the finest is the post-office, though as yet incomplete, for its plan provides for an addition to be used as the headquarters of the telegraph system under government control. In the town-hall is a chamber with seating capacity for 3,000 persons, and with a colossal organ on which afternoon performances are given. For the law-courts an imposing structure has recently been erected, its elaborate facades, 300 feet in length, surmounted by a lofty cupola resembling that of the capitol at Washington. The new houses of parliament with their freestone fronts, their Doric colonnade, and rich interior decorations, form a plain but dignified composition.

The treasury and mint are well-proportioned edifices, the latter adding millions of sovereigns a year to the gold circulation of the colony. In a structure remarkable chiefly for hugeness of dimensions are the principal government offices. The public library is a creditable specimen of colonial architecture. On the lower story are sculpture and picture galleries containing reproductions and original works of art, with many thousands of engravings, photographs, and illustrations of the industrial arts. On the upper floor are 150,000 volumes arranged in recesses provided for every branch of literature, and where the visitor may roam at will so long as he keeps silence and replaces books where he found them. The university is housed in a picturesque group of no great size, the finest being Wilson hall, which divides with the Scotch kirk the architectural honors of Melbourne. The Anglican and catholic cathedrals are among the best of many church buildings; and there are colleges, hospitals, theaters, hotels, and other edifices in keeping with a city of metropolitan rank.

There are other towns on this inland sea named Port Phillip, chief among which is Geelong, coexistent with Melbourne as a settlement, and pleasantly situated on the western arm of the bay. Its streets are regular and spacious, and there are many stately buildings, with parks, botanical gardens, and other adjuncts such as befit a town that was once the rival of Melbourne. Less than sixty miles northwest of Geelong and connected with it by rail is Ballarat, "the golden city" it has been termed, and as Anthony Trollope remarked more than a score of years ago, "in point of architectural excellence and civilized comfort the metropolis of the Australian gold-fields." Instead of searching for low-grade ore, as now they do at a depth of more than 2,000 feet, the miners of olden days were accustomed to take out several thousand pounds from claims a few feet square, a single tubful of earth yielding as much as £3,225. Not far away is Bendigo, the center of an auriferous district extending over 150 square miles, and containing immense deposits of gold-bearing quartz.

Adelaide, the capital and only important city of South Australia, is built on the banks of the Torrens, a few miles from its outlet into the gulf of St. Vincent. Though small, it is one of the most sightly of cities, with a background of wooded mountains 2,500 feet in height, while almost in its center the river, spanned by several bridges, divides the residence and business sections, the former containing the neatest of villas interspersed with churches and colleges. Many of the public edifices were erected by Melbourne architects, and are in excellent taste, especially the town-hall, court-house, post-office, and museum, where are large collections of minerals and specimens in natural history. Worthy of mention also are the new houses of parliament and the university building, the latter a Gothic structure with spacious hall and lecture rooms; nor should we forget the park lands which encircle the town, nearly 2,000 acres in extent, and the botanical gardens in the eastern suburb, the pride of the South Australian. There is a clean, fresh look about Adelaide, with its vine-clad residences, its perfect

drainage system, and its abundance of pure water, making it probably the healthiest city on the continent.

Perth, like Sydney, was founded as a convict settlement, though transportation to western Australia ceased in 1868, and to New- South Wales thirty years before, the people of Victoria threatening to land a cargo of their own criminals on British shores for each one that should be sent from Britain to the former colon}'. Nearly one-half of the 60,000 inhabitants of western Australia reside in Perth or Freemantle,, the former, built partly with convict labor, being the capital city. It has many commodious buildings, both public and private, including protestant and catholic cathedrals, a town-hall, library, state grammar school, government off ices, and the official residence of the governor.

Tasmania, originally a penal colony founded in 1803 as a branch of the New South Wales establishment is now the home of thousands, of contented and prosperous farmers, whose thrifty homesteads, orchards, and fields of grain, in valleys and plateaus surrounded with verdure-clad hills, recall the beauties of English landscape scenery. Well does it deserve its title of "the garden of Australia;" for here can be raised all fruits and plants that thrive on British soil, together with the vine, the fig, and other semi-tropical products. Wheat averages 17 bushels and oats nearly 30 bushels to the acre, while of potatoes four or five tons are an average yield, and on the northwest coast as much may be harvested from a single rood of land. In 1895 the island contained about 175,000 horned cattle and 1,600,000 sheep, while the country, abounds with game and the coast and inland waters with fish. Of its mineral resources I have already spoken, and these, in common with others, need only capital and enterprise for their profitable development.

In beauty of site there are few more favored cities than Hobart Town, the capital, built on more hills than Rome itself, and overlooking the stately stream of the Derwent a few miles above its outlet. There are many churches, chief among which are the catholic and protestant cathedrals; there are charitable institutions supported by the state, and in the business quarter are several banks; for there are many rich men in Hobart Town, notwithstanding its sleepy and self-contented aspect. The public buildings are adjacent to each other, and in the suburbs is Government house, a castellated mansion whose grounds adjoin the botanic gardens. Launceston, on the northern and opposite side of the colony, is connected by rail with the capital and by steamer with Melbourne which can be reached in a few hours' trip. It has also its public buildings, its town-hall, hospitals, library, theater, and the rest, one of the oldest structures being the Episcopal Church erected in 1824. In the railroad journey across the island, though made to better advantage by coach, as in earlier days, is some of the finest scenery that human eye can rest upon.

New Zealand is also noted for its magnificent landscape views, grand rather than beautiful; for the foliage is of somber hue, forest-clad mountains covering a large proportion of the North island, while in the South island the Southern Alps and other ranges occupy four-fifths of its area. On their eastern side are extensive and fertile plains; on their western slope are inexhaustible stores of mineral wealth, and on the southwestern coast fiords, long narrow and deep, encircled with snow-clad peaks, give to this region all the sublimity of Norwegian or Alaskan scenery. There is an abundant rainfall; rivers and lakes are numerous and in all portions of the country are running streams of the purest water. The climate is equable in the main, and with no great extremes of heat or cold, though of course with the usual variations caused by latitude, elevation, and exposure, the mean annual temperature of the entire colony being 63 degrees in summer and 48 degrees in winter. It is a healthy land one of the

healthiest in the world, the death rate not exceeding 11 per 1,000, or very much less than in Great Britain or Australia.

While the resources and industries of New Zealand and Australia have much in common, there is little in common as to their fauna and flora. In the former country not only are marsupials unknown but there are no indigenous animals of any kind except the native dog and rat. There are about 140 species of birds peculiar to New Zealand, including the moa, a huge wingless creature of the genus dinornis, believed to have been as much as twelve feet high, but now extinct.

The eucalyptus, which covers so large a portion of the Australian continent, is unknown in New Zealand; but in its place is the Kauri pine together with 120 species of indigenous evergreens, among which are many of economic value. Wide tracts are covered with grasses suitable for the pasturage of cattle and sheep, the former being at least 1,000,000 and the latter 25,000,000 in number. Including the very large area sown with imported grasses, there are 11,000,000 acres under crop, and there is more than that quantity of good agricultural land still at the disposal of whosoever will purchase it from the crown. Of wheat an average yield is 23 bushels, and of oats and barley from 28 to 30 bushels an acre. Minerals are widely distributed, the production of gold being at the rate of nearly £1,000,000 a year, of coal £400,000, and there are valuable deposits of copper, iron, lead, zinc, and antimony, for the most part still untouched.

Auckland is the largest town, containing about one-fifth of the 325,000 inhabitants of the North Island. It is a thriving little seaport and is surrounded with thriving villages, with which it is connected by rail. Among its principal buildings are the governor's mansion and the cathedral, a wharf nearly half a mile in length affording excellent accommodation for shipping. Christ church on South island which, together with Stewart Island to the south contains nearly 400,000 people is a railroad center in the midst of the great Canterbury plain. It is also a prosperous agricultural town with many handsome buildings, and connected with it by rail is its port of Lyttleton. Dunedin, on Otago harbor, has a considerable shipping and local trade, its customs revenue amounting to some £500,000 a year. It is beautifully situated amid an amphitheater of hills and has wide and well paved streets, built at great expense through swamps and ridges. Among its many fine edifices are the Presbyterian churches, the University of Otago and the museum, where is an exhaustive collection of New Zealand flora and fauna. There are many other towns in this prosperous colony, where poverty is rare and destitution unknown; but as one is like unto another, they need not here be mentioned in detail.

In the light of recent events the Hawaiian Islands have become of more than usual interest, especially to Americans, among whom their history, physical features, resources, and products are too well known to require extended description. As to their annals, they differ not from those of many other lands which have fallen under foreign domination under the name of a protectorate or such, euphemistic phrase as may cloak the iniquity of taking by force what belongs to another. First came the missionaries to convert some 140,000 natives, now reduced to less than one-fourth of that number through the importation of European vices. These they termed savages though a light-hearted and good-natured folk, and leading a far more natural life than the missionaries themselves; naked but not ashamed, and subsisting almost without labor on the spontaneous fruits of the earth. In the wake of the missionaries followed traders and capitalists, picking up all that could be had for little or

nothing in the way of lands and commodities. Finally came revolution, with proposed annexation to some foreign power.

The islands are mainly of volcanic origin, and most of them are extremely mountainous; but there are large areas of fertile land especially suitable for the production of sugar. Coffee, fruits, and wool are also among exports averaging perhaps $12,000,000 a year, against imports of half that amount, the trade being almost entirely with the United States and to a small extent with Australia, a regular and subsidized line of steamers connecting the islands with both these countries and also with New Zealand. There is a moderate volume of internal commerce, and there are about 60 miles of railroad and 300 of telegraph line, the laying of a cable between the various islands and thence extended to the American and Australian continents being one of the projects under contemplation in 1897. Government is expensive for so small a community, less than 100,000 in all; and here was the principal cause of the revolution; for a large proportion of the revenue, sometimes exceeding $2,000,000 a year, was appropriated for the expenses of the royal family, whose manner of living was somewhat extravagant.

Hawaii is the largest of the group, its area of 4,200 square miles covering two-thirds of their entire surface. It is almost entirely occupied with the slopes of volcanic mountains with gentle ascent and forest-clad to a height of 6,000 feet. Mauna Loa and Kilauea are its active volcanoes, the latter being the largest in the world, its crater, nearly ten miles in circumference and with vertical walls 1,000 feet in height filled with a lake of molten lava. An eruption of Mauna Loa in 1868 was attended with earthquakes and a tidal wave 40 feet in height, causing much loss of life and property, while in the same year another wave, crossing the Pacific from the coast of South America, not only struck the islands but made itself felt as far as the coasts of Australia and New Zealand. Hilo, the largest settlement, on an open roadstead of that name protected by a coral reef, is little better than a village, around which are many thriving plantations.

Honolulu, on the island of Oahu, is remarkable rather for the beauty of its site than for its buildings, many of which are one-story frame houses, and not a few are merely huts of grass. Nevertheless, it has its royal palace, formerly the residence of the king; its churches, business structures, and benevolent associations, the foreign and especially the American element being the dominant power in the land Oahu is a beautiful island, its peaks, cliffs, and cascades, its valleys and lower mountain slopes clad with tropical vegetation present all the elements of the picturesque. Kauai is also famous for its scenery, and for its fertile soil of decomposed lava. In Maui is the extinct volcano of Haleakala, that is to say “the home of the sun" more than 10,000 feet in height, with a crater 2,700 feet from top to rim, and a surface area of nearly 16 square miles. In Molokai, with its leper settlement; in Lanai, Niihau, and other islands, there is nothing that need further detain us.

Miscellany

Of some of the innumerable islands and island groups between the Asiatic, Australian, and American continents mention has been made in the chapter on Central and Southeastern Asia. In conclusion a few words may be added as to the Fiji islands, more than 200 in number, the largest, named Viti Leru, having an area about equal to that of Jamaica. The native population exceeds 100,000, though rapidly decreasing, as appears to be the fate of Polynesian races when brought into contact with Europeans, of whom there are several thousands, with 12,000 or 15,000 laborers, largely imported for the sugar plantations under contracts which virtually make slaves of them. There are perhaps £5,000,000 of foreign capital invested, mainly in sugar industries, the trade of about £1,000,000 a year being almost exclusively with Australasia.

Australasia, it is claimed, is the richest country in the world; private wealth, to say nothing of unsold government lands and public works, being valued in 1895 at £1,350,000,000, or more than £350 per capita of the population. For the same year the following figures as to the productions of the principal colonies may be accepted as approximately correct. New South Wales, agriculture, £4,500,000; stock-raising, £15,000,000; dairy farming, £3,000,000; mining, £5,500,000; forests and fisheries, £1,500,000; Victoria, agriculture, £8,5,00,000; stock-raising, 7,000,000; dairy farming, £4,000,000; mining, £3,000,000; forests and fisheries, £600,000. Queensland, agriculture, £2,500,000; stock-raising, £6,500,000; dairy farming, £1,100,000; mining, £2,800,000; forests and fisheries, £750,000. South Australia, agriculture, £3,750,000; stock-raising, £2,400,000; dairy farming, £850,000; mining, £450,000; forests and fisheries, £350,000. New Zealand, agriculture, £5,500,000; stock-raising, £8,000,000; dairy farming, £2,250,000; mining, £1,750,000; forests and fisheries, £7,000,000. The figures for Western Australia and Tasmania are very much smaller, and those for north Australia and Alexandraland comparatively insignificant.

For the year ending June 30, 1895, shipments of Australian and New Zealand wool amounted to 1,952,000 bales, against 1,890,000 in the preceding year, 70 percent of the total being marketed in London and 35,000 bales in the United States, where there is a moderate demand for the finer grades for admixture with those of coarser fiber.

The Australasian colonies are indebted to English capitalists probably to the amount of £400,000,000; but of this a large proportion is invested in railways and other public works under government control, already returning fair interest on the cost of construction and management, notwithstanding the sparse population.

At the entrance of the mining pavilion of New South Wales at the Columbian Exposition was a pillar of frosted silver from the Broken Hills mining company, its shaft festooned with garlands and supporting a figure of Atlas bearing his customary burden. In inscriptions on one of the walls was stated the mineral yield of the colony, including, up to the close of 1892, gold to the value of $187,000,000; silver and lead, $54,000,000; tin, $46,000,000; copper, $29,000,000; and coal $124,000,000, other products of the mine swelling the total to $500,000,000.

In Australia there have been several intercolonial expositions, and one or two which by a stretch of courtesy may be termed international. The last one was in Melbourne in 1888, in celebration of the

founding of the first British settlement on Australian shores. The palace erected for the purpose is still preserved.

The University of Sydney has a government endowment of £ 12,000 a year, and though a comparatively new institution, has already been enriched with donations and bequests exceeding £350,000. The president's salary in addition to a handsome residence, is about £1,500, which was formerly also the annual stipend of a supreme court judge, though increased within recent years, the chief-justice receiving £3,000, the attorney-general and colonial secretary each £2,000, and the governor £7,000.

In 1884 a company was formed to develop the diamond mines of New South Wales, and especially those at Bingera, with the result that 75,000 stones were found within three years, the largest weighing about six carats. The deposits are extensive, but have never been systematically worked, though Australian diamonds are of excellent quality, said to be superior to those of South Africa and Brazil.

On Thursday Island, some 2,000 miles from Brisbane, some of the largest pearl beds in the world are worked by a joint-stock company on scientific principles and on an enormous scale. Some of the pearls are of extraordinary size and of beautiful luster, occasional specimens selling for as much as £1,000 apiece, with many worth £100 and upward. On the pearl-fishing grounds of Western Australia was found, in 1874, a group of nine pearls in the form of a Latin cross, and all of good size and color. It is said to have been recently sold for £10,400.

Tasmania, though not ranking high as a mining country, has produced, within the last quarter of a century, £2,500,000 in gold, a single company disbursing £500,000 in dividends, while at Rocky river nuggets have been found the largest of which weighed 240 and 143 ounces respectively. There are silver deposits giving promise of excellent returns; of tin the yield up to 1896 was valued at £8,000,000, and near tide-water, on the eastern coast are 40,000 acres of coal lands.

Between 1886 and 1889 land speculation was rampant in Melbourne and elsewhere, caused largely by the influx of English capital borrowed for the construction of public works, among them the underground cable roads of the Tramway trust whose, members were appointed by the city and suburban councils. Then came the reaction, the effects of which were felt for several years, thousands who deemed themselves wealthy being driven to insolvency, and forfeiting, besides their business reputation. The climax came in April 1893, when five of the principal banks suspended, with total liabilities exceeding £40,000,000, a terrible blow to the commerce and industries of all the colonies. In seasons of panic Australian banks will not stand by each other as do those of the United States.

Section Seven

Chapter the Nineteenth: South America

Why lose we life in anxious cares,
To lay in hoards for future years?
Can those, when tortur'd by disease,
Cheer our sick hearts, or purchase ease?
Can those prolong one gasp of breath,
Or calm the troubled hour of death?
—Gay

O grievous folly to heap up estate,
Losing the days you see beneath the sun.
When, sudden, comes blind unrelenting Fate,
And gives th' untasted portion you have won
With ruthless toil, and many a wretch undone.
To those who mock you, gone to Pluto's reign.
—Thomson

Mammon led them on;
Mammon, the least erected spirit that fell
From heaven; for e'en in heaven his looks and thoughts
Were always downward bent, admiring more
The riches of heaven's pavement, trodden gold,
Then aught, divine or holy else enjoy'd
In vision beatific.
—Milton

Yet in thy thriving still misdoubt some evil;
Lest gaining gain on thee, and make thee dim
To all things else. Wealth is the conjurer's devil;
Whom when he thinks he hath, the devil hath him.
Gold thou may'st safely touch; but if it stick
Unto thy hands, it woundeth to the quick.
—Herbert

We know that wealth well understood,
Hath frequent power of doing good;
Then fancy that the thing is done,
As if the power and will were one;
Thus oft the cheated crowd adore
The thriving knaves that keep them poor.
—Gay

Knowing that wealth in some form pervades all savage domains as well as the more civilized countries, it was with keen interest that from century to century Europe worked out the proper conception of the shape and substance of the New World. In physical formation the two Americas are twin continents, pear-shaped, broad at the northern end and tapering to a point at the southern, one terminating in an isthmus and the other in a promontory. A continuous chain of volcanic mountains extending along the western side from the northern extremity of one to the southern end of the other, called respectively the Rocky mountains and the Andes, though other names are also used, tie together these two great masses of earth. On either side are smaller chains, for the most part following the trend of continent and coast. On the Pacific side of South America, between the Cordillera and the sea, is a low-lying strip 8,000 miles in length, and from 50 to 150 miles wide, fertile at either end but sandy in the middle. East of the mountains are the basins of the great rivers, the Orinoco Amazon and La Plata, the first consisting of nearly treeless llanos, or steppes, parched and cracked by heat during the dry season, but covered with luxurious vegetation during the rains; the second a plain 2,000,000 square miles in area, covered largely with forest, but containing much fertile soil; the third dry and often sterile pampas, or prairies, but for the most part with a rank growth of tall grass, which feeds immense herds of cattle and horses. The mountains and vales of Brazil are well wooded on the eastern side, the interior country being open pasture lands.

The mountain ranges which cut into strips the great eastern plains and plateaus, like the Cordillera of the western coast, run nearly north and south; but branching off from the Andes at right angles and extending from west to east are three transverse ranges, one at 17 degrees 25’ south latitude, running toward the river Mamore, one between 3 degrees and 4 degrees extending eastward into French Guiana, and one, the cordillera of the north coast, leaving the Andes at Maracaybo and extending eastward through Venezuela to the gulf of Paria. Between the head-waters of the Amazon and La Plata the mountains are in the form of hill-girt tablelands rather than of well defined chains; and in fact the same may be said of all Brazil, though there are some sharp ridges of moderate height toward the eastern seaboard, and running parallel with it. The Andes form a rampart with an average height of 10,000 or 12,000 feet, but the sierra de Merida in the north rises to a height of 15,000 feet, with many still higher peaks.

In the geology of South America we find a great variety of formations, notwithstanding that the stratigraphy is simple and wide areas are overspread by similar groups of rocks, namely, for the outer border pre-Silurian, the schist and quartzites of the basin between the Plata Amazon and Orinoco rivers being of the Silurian period, but with limestones and sandstones of the carboniferous age, and Triassic and Neocene in the transverse ridges. Along the west coast, in Chili and Peru, are granite supporting gneiss, slaty schists, and quartzite; granitic mountains also in Bolivia and gneiss in Colombia and Brazil; the oldest rocks visible in the high valleys of Ecuador being granite gneiss and schists. There are many extinct and a few active volcanoes all along the Andean and Rocky ranges, from Patagonia to Alaska, as well as in the Coast and Cascade mountains in and north of California. Of the active volcanoes those of Ecuador display the greatest igneous force. Cotopaxi and one or two others being in a state of constant eruption. On the eastern side, the metamorphosed Silurian and carboniferous rocks show evidence of volcanic fires in the Appalachian range, though long ago extinct. A line of living and dead volcanoes crosses the continent at the city of Mexico, among them being Popocatepetl, 17,884 feet high, and Orizaba 17,337 feet. Conspicuous also are St. Elias, 17,850 feet, on the seaboard of Alaska, and Holy Cross, 17,000 feet, Big Horn, 15,000 feet, and Lincoln, 14,300 feet,

in the Rocky mountains. In the California sierra are several high peaks, and in the California and Oregon coast ranges are others showing not very remote igneous action.

Every variety of climate may be found in America, except, perhaps, the extremes of heat and cold. The mountains which overrule the courses of the wind and regulate moisture are primarily the Andes in South America and the Sierra-Cascade and Rocky ranges in the north. For a distance of 30 degrees on either side of the equator the trade winds blow from the east, causing the precipitation of moisture on the eastern side of the mountains and table lands which obstruct them, and leaving the western side comparatively dry and sterile. Thus it is that the eastern sides of both continents are well watered between 30 degrees south and 30 degrees north, while the western sides, that is to say northern Chili and the coasts of Peru Ecuador and Colombia in South America, and in North America Lower California Sonora and other parts of Mexico, are dry. In Central America and the southwestern coast of Mexico the table lands are so low, and the mountains so broken and scattered as to cause less obstruction to the trade winds, and consequently to exercise less influence over the rainfall. North and south of this belt of 30 degrees on either side of the equator the winds are variable, and regulated more by local influences, though as a rule coming in from the open sea from the west. The northwest coast is well watered through the influence of the Japan Current, which, rising in the Japan Sea, flowing northward, and sweeping round by Kamchatka across Bering Strait to Alaska, precipitates upon the mountains a heavy fall. But as the clouds become lighter as they drift southward, the rainfall in British Columbia, Washington, Oregon, and northern California is copious, while at San Diego there are but ten inches, and on the peninsula of Lower California scarcely any rain at all. A slight variation in the course of the wind summer and winter produces the dry and rainy seasons in California. Thus the wind from the southwest, which blows back the remnant of this Japan Current, brings rain, while the warm dry currents which come up from Lower California for six months, beginning about the first of May, disperse the moisture-laden currents from the northwest. The rainy season on the Mexican table land is during the summer months, which is the dry season on the coast of California. The wide area between the Sierra Nevada and the Rocky mountains is dry because shut off by high ridges from both oceans; indeed, it is said that the Mississippi valley would be sterile but for the open space at the mouth of the river which admits moisture-laden currents from the gulf.

With rivers and forests both the Americas are well supplied. There are in South America the Amazon, 4,000 miles in length; the Plata 2,400 miles, and the Orinoco, 1,800 miles; in North America the Mississippi, 4,300 miles, and the St. Lawrence, 2,200 miles, besides many lesser streams on either continent. A singular phenomenon, called a bore, occurs at the mouth of the Amazon two days before and after full moon—a wave from the sea so high and strong as to prove destructive to small craft. The large rivers of the west are the Yukon of Alaska; the Eraser and Columbia of British Columbia, Washington, and Oregon; the Sacramento of California, and the Colorado of the great interior basin.

The flora of America, that so essential covering with which nature overspreads her deformities, how beautiful and grand it is! Forested hills interspersed with grassy plains, thousands of varieties of trees and grasses fruits and flowers, with food for beasts and men and wealth for all who will work for it. The snow plant of the arctic rises from beneath ten feet or more of its cold covering and crimsons the white surface with its flowers. Descending from the north through the region of sub-arctic lichens and asters, we come to the belt of pine oak and maple, each in their several varieties; here grow grain and the fruits of temperate climes, between latitudes 36 degrees and 30 degrees is the zone of the magnolia, and of forests of pinnated leaves and broad shining foliage; here sugar-cane rice and cotton

are cultivated. Cacti and peppers appear all the way from California to the Amazon, in places at a height of 5,000 feet. Besides coffee sugar and cocoa are yams and plantains, growing almost spontaneously.

In North America are also indigenous ash, hickory, and beech, poplar chestnut and walnut; in Mexico and Central America ebony and mahogany; among the gigantic forests of South America the greenhart and the mora. Other plants indigenous to America are maize, tobacco, the potato, millet, tapioca, the pineapple, agave, nux-vomica, sassafras, chinchona, jalap, copavia, and arrow-root.

Animals native to America are the llama, and vicuna, corresponding to the camel and dromedary of Asia; the tapir and buffalo; the antelope, elk, and deer; the beaver and the seal; the lion, tiger, and bear, and hundreds of others. In the tropics, the monkey is conspicuous, and myriads of birds of brilliant plumage. Geologic formations show the presence at one time of a mammoth horse and of other gigantic animals. On the sterile stretches the prairie dog makes its home, and in the southern United States raccoon and opossum are numerous. In both oceans, and in the lakes and rivers are an abundance of fish,—among a multitude of others, cod on the eastern side and salmon on the western. However clearly defined in the imagination of some ethnologists are the race distinctions of the aboriginal occupants of America, aside from the Eskimo, who does not indeed belong to America, but rather to Siberia on one side and Lapland on the other, the native tribes and nations of the two Americas resemble each other in characteristics which have not their counterpart elsewhere on the globe,—reddish skin, long lank coarse hair, high cheek bones, and individuality of nose, eyes, lips and skull.

And so it is in languages and customs. Though displaying many differences such for example as are peculiar to the inhabitants of the great forests, to the prairie-dweller, the occupants of the Mexican and Peruvan plateaus with their light complexion and almost as civilized as Europeans; the dusky denizens of tropical seaboards, the South American forester and plain-dweller;—then again the differences arising from variety of occupations and habits as fishermen, hunters, eaters of grasshoppers, and the rest;—all, I say, are allied by race distinctions, bringing them under one great relationship, which may be called, as well as by any other name, the American Indian.

Ethnologically then, the aboriginal inhabitants of South America were one with those of North America, differing among themselves, yet different from all the world else. The land of the Incas was what is now the states of Ecuador, Bolivia, and Peru. East of the Andes the natives were savages, and at the extreme south, in Patagonia, of the lowest type. The Peruvians, or subjects of the Incas, occupied both sides of the Andes for a distance of 2,500 miles, but some of their domain being desert and other parts mountain peaks, the capability of the country to support the inhabitants was not commensurate with its extent. The area occupied by the civilized Peruvians was of much more limited extent, the remaining portion of their empire being outlying provinces of savage communities. Without a hieroglyphic language, or calendar, as had the Mexicans, and lacking military courage and moral fiber, the culture of the Peruvians was not well grounded, and quickly disappeared under the blasting breath of European presence, while the Nahua nations so freely mingled their blood with that of the conquerors that Mexico today is more native than foreign. In Spanish-American countries we may count a score at least of recognized grades in the mixing of the black white and red, then of the mixtures of these mixtures, and so on. It is not a question of the deepest import, indeed, what or whence they were, as there will soon be few of them left for the dominant race to trouble itself about,

the original 100,000,000 being already reduced to less than 6,000,000, leaving out half and quarter breeds. In regard to speech, notwithstanding the oneness of the people, half the dialects of the entire world were found in America, where they numbered more than a thousand.

The civilization of the Peruvians at the time of the conquest was the highest it had ever attained, having fairly emerged from savagism 1,000 years prior to this period. As agriculturists they were superior to the Mexicans. Wooden mattocks supplied the place of ploughs, and irrigation was extensively practiced, while for fertilization recourse was had to the guano islands near the coast. They had no draught animals, and yet like the Egyptians they used large stones in their building, squaring them with chisels made of copper and tin. Huge blocks were thus put in place, neatly joined, and often elaborately carved. But more of this hereafter.

Confining ourselves to authentic records, the mainland of South America was first touched by Europeans in the third voyage of Columbus, in 1498, Amerigo Vespucci preceding him in the discovery of North America; but long before this South America had undoubtedly been visited by Asiatics or Europeans, driven by adverse winds from the coast of Africa, as in the north Scandinavians had found their way to the shores of New England centuries ere the illustrious Genoese was born.

A chronological list of some of the more important events in American history will greatly aid us in our study of the subject.

1474 Ferdinand and Isabella proclaimed sovereigns of Castile.

1479 Ferdinand becomes king of Aragon.

1480 The Inquisition established.

1492 Granada taken by the Christians. End of Moorish domination in Spain. Columbus sails on his first voyage August 3rd. He lands at San Salvador (Cat island, one of the Bahamas, generally supposed to be the Guanamani) October 12th.

1493 Columbus' second voyage. Pope Alexander VI "fixes the line of demarcation" between the Spanish and Portuguese possessions. Santo Domingo city founded under the name of Isabella.

1493 Porto Rico discovered.

1494 Jamaica discovered.

1496 Florida seen by Sebastian Cabot.

1497 Newfoundland discovered; the mainland of America discovered by the Cabots.

1498 Columbus' third voyage; he reaches the main land of America.

1499 Mainland of America reached by Alonso de Ojeda and Amerigo

1500 Charles I of Spain, 5th of Germany, born.

1500 Brazil discovered by Vicente Yanez Pinzon.

1501 Columbus taken to Spain in chains.

1502 Columbus' fourth voyage to America

1504 Queen Isabella, the catholic dies.

1506 Columbus' death, May 20th.

1509 Juan Ponce is governor of Porto Rico.

1510 Cuba conquered by the Spaniards.

1511 Diego Velasquez made first governor of Cuba.

1512 La Plata river discovered by Juan Diaz de Solis.

1513 Pacific ocean seen by Vasco Nunez de Balboa, who takes possession of it. He is beheaded by Pedrarias Davila at Acla, 1517.

1514 Reino de Castilla del Oro (Panama isthmus, and Venezuela) constituted; Pedrarias Davila, governor.

1515-1517 Gov. Davila s expeditions

1515 Habana (San Christobal de la) founded where Batabano now is; transferred later to its present site.

1516 Ferdinand the catholic dies January, 23d. Charles V succeeds, reigning jointly with his mother Juana; later reigning alone.

1517 Yucatan discovered.

1518 Juan de Grijalva's voyage; discovers Tabasco, and the coast of Vera Cruz.

1519 Tenochtitlan-Mexico taken by Hernan Cortes in November.

1519-1523 Gil Gonzalez in Costa Rica and Nicaragua.

1520 Magellan straits crossed by Magalhaes, November 28th.

1520 Cortes leaves Mexico in July.

1521 Mexico besieged, bombarded, and captured by Cortes; May to August.

1522-1821 Spanish domination. Mexico under governors Cortes and others, 1522-1527; under the first audiencia, President Nuno de Guzman, 1527-1531; under the second audiencia, President Sebastian Ramirez de Fuenleal, 1531-1535; under viceroys, 1535-1821.

1522 Magellan's first voyage around the world.

1522-24 Guatemala and Salvadorconquered by Pedro Alvarado.

1524-25 Honduras colonized.

1525 Buccaneers begin their piratical practices in the West Indies about this time.

1526 Peru, Pizarro and Almagro arrange for the conquest and partition of the country.

1527 The Bermudas discovered by Juan Bermudez.

1527 La Plata river. Sebastian Cabot's journey on it.

1531-1533 Peru taken possession of by Pizarro and Almagro. Atahualpa put to death in 1533.

1531 Brazil. Settlements by the Portuguese.

1535 Buenos Ayers founded by Pedro de Mendoza; subsequently abandoned; refounded in 1542 by Cabeza de Vaca; abandoned a second time in 1543; founded a third time in 1580.

1535 Guayaquil founded.

1535 Chili. First invasion of by Almagro.

1537 Queen Juana's death.

1538 Habana destroyed by a French pirate; destroyed a second time in 1554 by buccaneers.

1541 Peru. Francisco Pizarro murdered in June.

1544 Peru. Gonzalo Pizarro's revolt; he is defeated and beheaded in 1547.

1550 Nicaragua. Revolt of Hernando and Pedro de Contreras. Murder of the bishop.

1550 Panama. The Contreras invade Panama; they are defeated and perish.

1559 Chili. Valdivia falls into the hands of the Araucanians and is put to death.

1568 Hawkins invades Vera Cruz; is defeated; but he and Drake escape; September 14-24.

1585 Drake s expedition against the West Indies.

1586 Callao destroyed by an earthquake.

1595 Porto Rico. San Juan attacked by Drake.

1598 Porto Rico. San Juan captured by the English, who carried off much artillery.

1608 Paragua. The Jesuits enter the country.

1616 Cape Horn. Van Schotten goes around it.

1629 United States. The Massachusetts Bay Company chartered.

1629 Brazil. The Dutch occupy the Brazilian coast.

1630 Curacoa wrested from the Spaniards by the Dutch (Settled in the sixteenth century)

1643-1644 Brazil abandoned by the Dutch. The Portuguese retain full possession.

1655 Jamaica taken from the Spaniards by English. May 3rd.

1657 St. Thomas colonized by the Dutch. (Discovered by Columbus, 1493.)

1668 Puerto Principe (Cuba) sacked and burnt by pirates.

1680 Mexico Tampico sacked by corsairs.

1683 Mexico Vera Cruz sacked by the buccaneers in May.

1692 Jamaica. Earthquake sinks Port Royal, the capital, in less than three minutes, under the sea, June 7th.

1697 Santo Domingo, western portion, ceded to France by Spain.

1710 Quito, presidency, annexed to Nueva Granada.

1711 Rio Janeiro attacked by the French, captured, ransomed.

1723 Nueva Granada, viceroyalty; reduced to presidency, 1724; viceroyalty again in 1740.

1731 Venezuela detached from Nueva made a captain-generalcy.

1732 Washington born February 22d; died December, 1799.

1733 Santa Cruz island ceded to Denmark.

1744 Cotopaxi volcano, eruption.

1746 Lima earthquake, October 28th; Callao destroyed.

1752 Franklin (Benjamin) proves that lightning and electricity are identical.

1755 United States, then British colonies, great earthquake November 18th.

1762 Habana (Cuba) taken from the Spaniards by the English; returned next year, the conquerors receiving Florida in exchange.

1762 Louisiana ceded to Spain by France; possession taken in 1766; restored to France 1800.

1767 Jesuits expelled from all Spanish America.

1775 United States; Boston besieged by Washington; the English abandon the city March 17, 1776.

1776 Buenos Ayres, government of, formed.

1776 United States; Declaration of Independence. July 4th; in 1777 the national flag adopted, June 14th.

1781 Florida retaken by the Spaniards from the English.

1783 United States; independence recognized by Great Britain.

1783 Bolivar, Simon, liberator of South America, born; his death on December 17, 1830.

1789 United States; organized as a federal republic.

1789 Revolution of Santo Domingo.

1789 Washington, first president of the U.S., April 30th.

1803 United States, Louisiana sold to, by Napoleon.

1806 Buenos Ayres captured by the English, June 27th; the invaders surrendered August 12th.

1807 Montevideo taken by the English in February.

1808 Buenos Ayres attacked by the English, who are defeated, capitulate, and are allowed to leave.

1808-1818 South America; movements which led to the independence.

1810 Mexico, Venezuela, and Nueva Granada; revolution which led to the independence.

1811 Hidalgo executed in Mexico, July 31st.

1811 Paraguay organized as a republic.

1812-1815 War between the United States and Great Britain; peace concluded December 24, 1814; battle of New Orleans, Januarys, 1815; the English utterly defeated.

1814 Bolivar, chief of Venezuela, January.

1815 Morelos, of Mexico, executed December 22nd.

1817 Paraguay; Dr Francia becomes dictator for life; he died September 20, 1840.

1818 Spaniards defeated at Maipo.

1818 Brazil erected into a kingdom.

1819 Colombia; republic created December 17th.

1821 Liberia, republic in Africa, founded.

1821 Mexico; independent. Augustin Iturbide crowned emperor May, 1822; abdicated March 20, 1823; banished to Italy; returned, and was executed July 19, 1824.

1821 Colombia; independence secured. Panama threw off the Spanish rule, and joined Colombia.

1821 Brazil; revolutionary movements. Pedro I, emperor. October 12, 1822.

1821-1824 Central America seceded from Spain September 15, 1821; is attached to the Mexican empire; recovered independence in 1824.

1821 Florida ceded by Spain to the United States.

1821 Peru; independence of, proclaimed in July.

1822 South America; Great Britain sends consuls to the South American states October 30th.

1822 Chili; great earthquake.

1823 Brazil occupies Uruguay; war with Buenos Ayres 1826-1828; Uruguay abandoned by Brazil in 1828.

1823-1824 Mexico ruled by a triumvirate.

1824 Mexico constitutes herself as a republic.

1824-1826 Peru, Bolivar dictator of, February 10, 1824; he defeated the Spaniards at Junin August 6th of that year; they are again defeated by Sucre December 24th; end of Spanish domination in South America; Calloa surrendered by the Spaniards January 22 1826.

1825 Great Britain entered into treaties with La Plata, Colombia, and Mexico.

1825 Brazil's independence recognized by Portugal.

1825 Argentine republic constituted January 23rd.

1825 Central American republic constituted.

1826 Brazil and Buenos Ayres at war; peace restored August 29, 1828.

1826 Treaty between Great Britain and Brazil for the abolition of the slave trade.

1829 Buenos Ayres; Juan Manuel Rosas became dictator.

1829 Spaniards under Barradas defeated on the Panuco river, September 11th.

1830 Colombia republic disrupted; Venezuela constituted herself a republic September 14th; Jose Antonio Paez, first president; Paez born in 1790; died May 6, 1873.

1831 Brazil in revolution; Pedro I abdicated April 7th; his infant son proclaimed emperor as Pedro II; deposed and republic proclaimed, 1889.

1831 Nueva Granada constituted herself as an independent republic; Francisco Santander first president; he had been vice-president of Colombia.

1831 Ecuador organized as a republic.

1831 Vicente Gurrero shot at Cuilapa, February 14.

1835 Nicaragua; eruption of the Coseguina, January 22nd.

1835 Texas rebelled against Mexico in July; proclaimed independence December 22nd.

1835 Concepcion destroyed the fourth time by an earthquake

1836 Peru; General Salaverry executed.

1840 Central American republic disrupted; they remained as separate states for some time, and finally constituted themselves as independent republics.

1842 Ex-president Francisco Morazan of Central America executed in San Jose, Costa Rica.

1844 Dominican republic constituted.

1846-1848 War between Mexico and the United States, on account of fraudulent claims and Texas' annexation; the Mexican capital taken; treaty of Guadalupe Hidalgo restored peace; the United States retained Texas and New Mexico; also California, by paying a sum of money for a clear title. The treaty was ratified May 19, 1848.

1849 Haiti became an empire under Soulouque, as Faustin I, August 26th; he was some years after deposed, and went into exile.

1850 Argentine Republic. The author of her independence, Jose de San Martin, died August 17th (born February 25th, 1778).

1851-1852 Uruguay. Capitulation of Oribe at Montevideo, October 7th, 1851; Urquiz entered the city the next day; defeated Dictator Rosas of Buenos Ayres, February 3rd, 1852, and occupied the city of Buenos Ayres on the 4th; he is made provisional director of the confederation June 23rd and deposed September 10th.

1852 Several slight earthquakes in California.

1853 Mexico; revolution in January. Santa Anna made president April 1st; he becomes dictator; he left the country in disgrace Aug 16-17. Santa Anna died in Mexico city June 21st, 1876.

1854 Earthquakes in Salvador; destruction of San Salvador.

1854 Mesilla valley, including Arizona, sold by Mexico to the United States.

1854 Guatemala. Rafael Carrera made president for life; he died in April, 1865.

1855 Panama railroad inaugurated January 28th.

1858 Mexico. Earthquakes with disastrous effects.

1858-1861 Mexico. War between the liberals and conservatives; the former victorious; President Juarez enters the capital January 11th, 1861.

1861-1862 Mexico. Foreign intervention. Occupation of Vera Cruz by Spanish forces December 17th, 1861. French and English troops arrive in January, 1862. The French defeated before Puebla May 5th.

1859 Quito almost destroyed by an earthquake; 5,000 persons perished; March 22nd.

1860-1865 Secession war in the United States, capture of the Southern capital and surrender of the remnants of the rebel army in early 1865.

1861 Mendoza in the Argentine Republic overturned by an earthquake.

1862 Honduras. President Guardiola murdered.

1863 Colombia constituted a federation of states.

1863 Dominican Republic. Spain takes possession to relinquish it again in 1865.

1863 Mexico. Puebla taken by General Forey May 17th. The French enter the capital June 11th; Maximilian of Austria chosen by the notables July 11th.

1864 Mexico. Maximilian arrives and assumes the crown; enters Mexico City June 12th.

1864 Venezuela assumes the federal form.

1865 President Lincoln, of the United States, assassinated April 14th.

1865 Jefferson Davis, president of the late rebel government in the United States, captured May 10th. African slavery formally abolished in the United States December 18th.

1865 Brazil, Argentine Republic and Uruguay form a coalition against Paraguay May 1st.

1865 Jamaica. Negro riots in Morant bay October 11th.

1866 Peru and Chili at war with Spain. Defenseless Valparaiso bombarded, with great destruction of property, March 31st; Callao bombarded later, without the Spanish force accomplishing anything.

1867 French forces, recalled to France, cease operations and gradually leave Mexico. Maximilian in Queretaro February 19th; the city soon after invested by the republicans; Puebla taken by Diaz's republicans,April 2nd, Queretaro captured by the Escobedo, May 14th; Maximilian a prisoner; Marquez, imperialist, routed by Diaz April 10th; Diaz invests the capital; Maximilian, Miramon, and Mejia shot on the Cerro de las Campanas June 19th.

1868 Asuncion, Paraguay, occupied by forces February 21st; destruction of the Paraguayan army at Villeta December 11th.

1868 Cuba's revolt for independence, October, unsuccessful end in 1878.

1868 Ecuador. Destructive earthquakes; the whole southern half of the eastern coast America devastated August 13-16.

1870 Paraguay. President Lopez defeated and put to death at Aquidaban March 1st.

1871-1872 Brazil. Slave emancipation bill passed by the Senate September 27th, United States; Alabama arbitration commission meets at Geneva December 18th, 1871; its award, September 14th, 1872.

1871 Central America. Overthrow of clericoligarchy.

1872 Mexico. President Juarez died July 18th (born in 1809).

1872 Peru. President Jose Balta assassinated; his death avenged by the people of Lima.

1872 California. Earthquake March 26th; effects of highly exaggerated abroad.

1873 San Salvador destroyed by earthquakes March 19th.

1875 Ecuador. President Garcia Moreno murdered August 14th.

1879-1881 Chili against Peru and Bolivia. Lima occupied by the Chilians January, 1881. Peace concluded soon after; the Chilians leave the country. Peru loses territory; Bolivia loses all her sea-coast.

1880 Panama Canal works commenced.

1881 United States. President Garfield assignated.

1881 Patagonia. Dispute between Argentine republic and Chili settled.

1882 Panama Isthmus. Earthquakes September 7th.

1885 Colon or Aspinwall burnt by 31st; Prestan hanged at Colon August 16th.

1885 Central America. President Barrios of Guatemala attempts restoring the union by force; he is defeated and killed in battle April 2nd.

1886 Colombia. Federal system ceases; centralized regime established; new constitution August 7th .

1886 Jesuits of Peru forbidden to live in community.

1886 New York. Bartholdi's Statue of Liberty unveiled October 28th.

1888 Brazil. Slavery abolished in May.

Vicente Yanez Pinzon in 1499 coasted between the mouths of the Amazon and the Orinoco, claiming the country for Spain, and carrying away brazilwood drugs and gems. The following year, Pedro Alvarez the Cabral was blown thither from the coast of Africa, where he had been following the track of Vasco da Gama. He discovered the mouth of the Amazon, and claimed the country for Portugal. Neither Pinzon nor Cabral planted a settlement; but Amerigo Vespucci, an Italian in the service of Portugal, built a fort at All Saints, and so secured to the Portuguese the vast area which became known as Brazil; Amerigo also traded in parrots and monkeys, and permitted his name to be given to not quite half the world.

The appearance of Alonzo de Ojeda with three ships on the coast of Venezuela in 1499, and the entrance of the rio de la Plata by Pinzon in 1508, set bounds on either side to the pretensions of Portugal. Spanish occupation being further extended by the discovery, and ostentatious claims to ownership, of the Pacific ocean by Vasco Nunez de Balboa in 1513, and the later conquest of Peru by Pizarro and Almagro. By such trifles of accident and caprice were determined the so-called proprietorship of large parts of the earth, and the mastery over the bodies and souls of millions of their fellow beings by the temporal and spiritual powers of Europe! After spending thirty years in driving from the coast the Spaniards and Frenchmen who attempted to settle there the king of Portugal divided the country into captaincies, each with a frontage of fifty leagues upon the ocean, and gave them to such approved subjects as were able to defend and develop their resources, with full powers of civil and criminal jurisdiction. To Martin Alfonso de Sousa was given a captaincy; and his survey of the coast he came to the mouth of a river on the first of January, 1531, which he thereupon called Rio de Janeiro, thence continuing his way southward, naming places along the coast from the days on which he discovered them, and choosing the domain of his captaincy some distance south of

his January river. In like manner captaincies were given to Pero Lopes de Sousa, Pedro de Campo Tourinho, Jorge de Figueiredo, and others.

And so the land was seized and settled, and natives who opposed the invaders were killed. As the savages here made no display of gold to tempt the cupidity of the foreigners, the settlers devoted themselves to agriculture. Cities, forts, and factories were established along the coast and at the mouths of rivers; plantations were laid out and European fruits, grain, and livestock were introduced. In due time it became necessary to centralize Portuguese power in Brazil, in order to provide adequate defense from foes without and within; hence the executive privileges given to the proprietors of the several captaincies were revoked, and the country placed under the rule of a governor-general, Thome de Sosa being the first to fill that office. With 1,020 men, 400 of whom were convicts, he built the city of Bahia, and established his capital there.

From this time the coast of Brazil was the prey alternately of various European powers. Philip III of Spain took with Portugal all of it that Portugal possessed, but presently gave it up, as did also the Dutch who in 1624 captured Bahia, and Olinda in 1630. Yet the Portuguese managed in the end to hold possession; and when the French revolution came, and after it Napoleon, the prince regent of Portugal. Dom Joao VI, who afterward became king, created a regency at Lisbon, and with a large retinue took refuge in Brazil in 1808 establishing his capital at Rio de Janeiro. Thus the colony became mistress of its mother monarchy and monarchy was planted in the New World, in due time to be uprooted once and forever.

The ports of Brazil were at once opened to foreign commerce; all exports were free of duty except brazil wood and diamonds, which were royal monopolies. Courts of justice, high and low, were established at Rio de Janeiro, as well as a royal mint, the bank of Brazil, and royal printing office and powder mills. On the whole the change was for the better, but a mistake was made in altering the money standard, thus bringing on financial confusion.

While the other American states were throwing off allegiance to the mother country, the spirit of republicanism became strong in Brazil, so that in 1821 King Dom Joao was obliged to send to Portugal for troops to quell insurrection. But the prince Dom Pedro, heir to the crown, who now began to take part in public affairs, through his popularity and intercession prevented revolution at that time. Independence was closely treading on the heels of imperialism, when in 1825 Dom Joao VI, king of Portugal, was made emperor of Brazil, and at once abdicated in favor of his son Dom Pedro I, at the same time declaring Brazil independent of Portugal. Though acknowledged king of Portugal on the death of his father, Dom Pedro transferred that crown to his daughter, Donna Maria, and becoming dangerously involved with the liberals, in 1831 he abdicated the crown of Brazil in favor of his son Dom Pedro II, then five years of age, and sailed for Portugal. The second Dom Pedro was a good and intelligent man, having the interests of the country at heart, and for the most part he was so regarded by the people; yet they held imperialism to be out of place, and after half a century and more of happy rule Dom Pedro II was quietly dismissed to the land of his ancestors, Brazil lapsing into republicanism.

With the exit of Dom Pedro II came to an end the only American monarchy, and let us hope the day is far distant when there will be another. In the older communities the infliction is bad enough, and is rapidly disappearing; when kingdoms and colonies are all wiped from the surface of the earth then men will be free, and intelligence reputable. Sentimentalists may exclaim "Poor Dom Pedro! Poor

Maximilian!" But the sprouts of European royalty must learn the lesson that it is better for them to remain at home and let their own people feed and tip them.

The yellow fever appearing in Brazil for the first time in 1849, and the cause being attributed to the importation of slaves, laws were passed prohibiting the traffic, and in 1871 it was enacted that every child thereafter born of slave parents should be free, state slaves and those which had been imported for the imperial household being declared free at once. Thus independence and the abolition of slavery were accomplished without the long wars and social eruptions which some nations were not so fortunate as to escape.

Brazil is a country of high and low plateaus, with here and there mountains not of the highest, the whole formation being mostly of gneiss. In Minas Geraes are clay slates with auriferous veins; south of the tropic are strata of coal, and carboniferous formations are found on the Guapore. Along the northern seaboard are coral reefs; there are hot wells and warm sulfurous springs but no volcanoes. The coast is lined with mangroves, back of which are palms; each river has a vegetation and foliage peculiar to itself. There are cocoa and cinnamon trees, pepper and vanilla. Brazilwood, which originally fringed the coast, is hard and heavy, takes a high polish, and yields a fine red dye.

There are besides, the soap-tree, the tapia, or garlic pear tree, the trumpet tree, and laurel and rosewood. The leaves of Carnauba palm yield a gum which has commercial value, while the export of the caoutchouc tree, which may be tapped every day during the season and its gum poured into moulds, amounts to more than $5,000,000 a year. Agricultural products embrace every variety common to temperate and tropic zones; and so with regard to animal life, nowhere in the world is the variety greater, though there are similar species of larger growth in Africa.

In 1786 diamonds were discovered in the serra do Espinhaco, 300 miles north of Rio de Janeiro. The stones are found in the sands of disintegrated quartzite, in the vicinity of sandstones shales and conglomerates. The sands are washed out at some stream with the help of sieve and wooden pan. Less conspicuous and producing stones of smaller size and less value are the diamond fields of Goyaz, Matto Grosso, Parana, Sao Pedro do Rio Grande do Sul, and Sao Paulo. There are in greater or less profusion a score of gems, some of great beauty. Besides coal, sulfur, and salt deposits, several extensive auriferous districts attract attention, the largest being in Minas Geraes, and covering the greater part of that province. Then there are the Morro Velho, Gongo Soco, and other gold mines, mostly in and around Rio das Velhas valley.

In the basin of the Parana-Paraguay River system lies the republic of Paraguay, with Asuncion for its capital city. Between the marshes draining into Ypoa lagoon and the Asuncion plateau is some good agricultural land, and dense forests, containing 70 kinds of trees, cover the Parana lowlands, while beyond the Paraguay are the vast rolling plains common to this part of South America. The mean temperature is 75 degrees, the warmer part of the year being from October to March, and the colder from April to September; the rainfall at Asuncion is 58 inches. Mining is not conspicuous, though iron and gold, copper and manganese, besides building stone and salt are found in abundance. There are eight fibrous plants of economic value and fifteen dye plants; Paraguayan tea is a commercial product, though mainly used for home consumption, the cocoa palm, orange, and banana tree grow so large and are such prolific bearers that their fruit can be had almost for nothing. The men women and children of the whole Plata country smoke Paraguayan tobacco, though little of it is exported; and so with coffee, of excellent berry but slightly bitter in flavor. Paraguayan sugar is good for making rum

and syrup; refined sugar for domestic use is brought from Brazil. All the people wear while cotton cloth, made in England, and subject to a duty of 40 percent, and this notwithstanding the fact that cotton grows there almost spontaneously. Bread is made, now as for centuries past, of mandioca and maize, which have long been staple products; wheat oats and rice are also grown in places. Nature in South America, mountains, plains and rivers, plants and animals are all on a vast and magnificent scale.

The Oriental Republic of the Uruguay, or Banda Oriental, that is to say the land on the eastern side of the river, is divided for administrative purposes into eighteen departments, the smallest of which, Montevideo, the Plata contains a fourth of the population. The great rivers that here converge, the Plata, the Uruguay, the Negro and its tributary the Yi, draining the vast pastoral plains between the Andes and the Atlantic, offer possibilities of limitless wealth. The tawny mountains of Uruguay, contrasting with the verdant rolling open country, are picturesque though not lofty. In the north are hills containing many metals and valuable stones; silver, gold, copper, and lead; agate, alabaster, and amethyst; marble, granite, and limestone. The climate is good; rainfall 40 inches.

Montevideo, with a lighthouse and old Spanish fort, stands on a small peninsula, less than 100 feet above the sea, the suburbs extending well into the country. The low flat-roofed houses with a profusion of Italian marble and the high towers from which far-distant ships can be seen, present the appearance of an oriental city rather than a South American seaport. Patriotic names abound. There is the plaza de la Constitucion, which is honored by the presence of the cabildo and the cathedral; the plaza de la Independencia, and the calle del 18 Julio. A market covering two acres cost $430,000. The city lives mainly by its slaughter houses, its chief exports being besides livestock, preserved meats, hides, tallow, horns, hair, wool, and bones. By 1,000 vessels $3,500,000 worth of such products is carried away every year. Total value of real property $100,000,000.

The special mission of Juan Diaz de Solis at the rio de la Plata in 1516 was to find a way by water to the other side of the continent, which indeed was Magellan's purpose when he was there in 1519. It is said that Solis and some of his men on landing were killed and eaten by the Charruas, but with what degree of truth I know not. Magellan, proceeding southward, passed through the strait to which his name was given and, continuing his course toward the Spice-islands, was killed by the natives of Zebu the year following. Sebastian Cabot was likewise here in 1527, and anchored off the spot where now stands Buenos Ayres, founding the settlement of San Espiritu on the Parana. Rio de la Plata received its name by reason of the profusion of silver ornaments worn by the natives. Other attempts were made to find a waterway through the continent at this point, leading to explorations which stopped only on reaching the Andean mountains. Meanwhile the settlements of Asuncion and Buenos Ayres were made, and upon the destruction of the latter by the savages, it was reestablished by Cabesa de Vaca.

After many wars with the natives, who were among the fiercest of native warriors, prosperity came to the settlements. Horses and cattle were brought from Europe, and such was the increase that in time innumerable herds spread over the pampas; wild but a source of wealth. Buenos Ayres was raised to a viceroyalty in 1776, with jurisdiction over a wide area, including besides what is now the Argentine Republic, Uruguay, Paraguay, and Bolivia, and with power to curb the encroachments of the Portuguese of Brazil. Wars between England and Spain, which here made themselves felt, were followed by the wars for independence, and these again by revolutions, internal discords, and quarrels

with the Portuguese which cannot here be given, and which indeed are scarcely worth the recital. Finally, a republican constitution was adopted, based on that of the United States.

Becoming involved in a war between Paraguay and Brazil in 1865, the resources of all participating were severely taxed, bringing to the front, either as patriots or victims, all the rich men of the country. Of these none were more wealthy than General Urquiza, who had vast estates at Entre Rios, and who was assassinated in his own house, in 1870, by an officer of his army. Thereupon further insurrection and civil war ensued.

With an area of over 1,600,000 square miles, the Argentine Republic has a population of some 2,400,000, being one and a half to the square mile, including Indians—a heavy decrease from the number of inhabitants prior to the coming of the Europeans. In the larger cities, as Buenos Ayres, more than half the people are Europeans, or of foreign birth; throughout the country are endless negro Indian and European intermixtures, not conducive to high culture. The importation of Africans ceased with the abolition of slavery during the war of independence. The yellow fever, which decimated the inhabitants of Buenos Ayres in 1871 and arrested immigration, is said to have been brought from Brazil, though the Argentine town was prepared with open arms to receive it, being in a filthy condition and almost without drainage. A good system of sewers has since been constructed.

Argentina is a pastoral country, though there are mines in the northwestern part, and several agricultural sections to develop vast wealth. From the hides, wool, and increase of 20,000,000 cattle and 100,000,000 sheep come for the most part the means for the payment of imported articles, as cloth and iron from England; wine, textile fabrics, and fancy goods from France; and lumber from the United States. To Belgium goes annually wool to the value of $12,000,000; to England, tallow $3,000,000, sheepskins $2,000,000, hides $3,000,000; to the United States $2,000,000 worth of hides. In wealth and importance Buenos Ayres is far in advance of any other Argentine city, possessing most of the advantages and adornments of civilization.

Standing upon the great plain that stretches out far away toward the Andes, on the right bank of the rio de la Plata, the city of Buenos Ayres, with its quarter-million of population, presents a pleasing picture. It is well laid out in squares, with broad paved streets, and the old Spanish one and two story houses of mixed adobe and cobblestone, with little furniture and no chimney, are rapidly giving place to modern structures of European style and finish and furnishings. There are sixteen Catholic churches, two hospitals, five theaters, and five markets. Upon the principal square, the plaza de la Victoria, front the government buildings, where resides the president of the republic; the cathedral, with Corinthian pillars and portico, and surmounted by a large dome; and the cabildo, or city hall. In the center of the square stands a monument in memory of the war of independence.

Patagonia was first sighted in 1520, by Magellan, who named it Tierra de Patagones from the large footprints in the sand. Tierra del Fuego being so called from the fires seen along the coast. By the sovereigns of Spain the territory was given first to Alcazava Sotomayor and then to Pedro de Mendoza. Under the auspices of these, and later of other interested persons, the coasts and interior were explored. In 1881 the country was divided between Chili and the Argentine Republic.

Patagonia is a great plain, with the southern extremity of the Andes on the western side. The western or Chilean part, sometimes called the Magellan territory, shows the action of glaciers, which with the help of the sea have cut Cape Horn into islands, with peninsulas and fiords indenting the tierra firme.

In the Chonos archipelago alone are more than 1,000 islands. The climate is equable; perpetual snow lies on the higher peaks and stunted vegetation covers the lower levels. The potato grows wild, and other vegetables are cultivated. Sea-elephants were once here, and the smallest deer known, the pudu, is found on the Taytas peninsula. The eastern Andean foothills support a luxuriant vegetation, the mountains precipitating the moisture brought in from the Atlantic, and here the soil is better, plant life richer, and animals more abundant. Under the large trees and in the thick undergrowth are found wild cattle and wild horses, from the strayed European stock of northern latitudes, with multitudes of deer and birds. On the broad open steppes, though the soil is thinner, it still supports many guanacos and ostriches, which are hunted on horseback and constitute the chief food of the natives.

Europe still retains its tenacious hold on parts of the New World, among others Guiana in South America, the French, Dutch, and English each owning a strip of territory. It came about in this way. Spain had the first claim to the country, as Columbus, Pinzon, Vasco Nunez, and Diego de Ordas were all there prior to 1830. The Dutch planted a settlement near the Pomeroon in 1580. Then in 1595 came Walter Raleigh and ascended the Orinoco in search of the fabled El Dorado. The French attempted colonization on the river Surinam. Then, following the usual methods in such matters, for two or three centuries they all fought each other, the governments meanwhile making grants and the settlers killing off the natives.

The boundaries of French Guiana were defined by the treaty of Utrecht in 1713. The seaboard is covered with mangrove marshes, back of which are fertile lands for agriculture and in the more distant interior, grassy highlands. The rainy season is from November to June, during which time the fall is 120 inches. All the grains and vegetables are raised, manioc being the principal food. Placer gold is plentiful. The Dutchmen have not explored more than one-quarter of their American colony, which is in area four times the size of their own country. Surinam has gold, and the river bottoms yield abundantly of almost all useful and commercial products. British Guiana has some good soil well covered with vegetation, fine rivers, and a little gold.

Venezuela, or little Venice, as Alonzo de Ojeda called it when he was there in 1499 and saw at the gulf of Maracaibo a native village the houses of which rested on piles above the water, was the first of tierra firme seen by Columbus. When in 1811 the people threw off the Spanish yoke, civil wars followed the wars of independence, in which Simon Bolivar, the Washington of South America, played a conspicuous part; and it was not until 1845 that Spain formally recognized the independence of the republic.

Bolivar, a native of Caracas, born 1783, was the leader of the revolution, and the hero of South American independence. After obtaining an education in Europe he returned home in 1809 by way of the United States whose free institutions he carefully studied. On his arrival at Caracas, he at once identified himself with the revolutionary movement and was given a command. After ten years of fighting with many successes and reverses, during which time he became first general and then dictator, he not only made his own country free but joining forces with the patriots of Colombia, delivered that land from Spaniards, who thereupon took refuse in Ecuador and Peru.

Thither went the indefatigable dictator with his army, and soon had the satisfaction of seeing the whole country independent and at peace. In 1819 the republics of Venezuela and New Granada were united and named Colombia, and after the adoption of a constitution. Bolivar was elected president and Santander vice-president. In 1825 upper Peru separated from the Buenos Ayres government, and

formed an independent state, named Bolivia in honor of the liberator, who was made perpetual protector, with almost unlimited power over Peru, Chili, and all Spanish South America. He continued to exercise supremacy in Colombia to the time of his death, in 1830. He asserted the dignity of justice, purified politics, and encouraged arts and industries. Nine-tenths of a large fortune was spent in the service of his country, and he died a comparatively poor man.

The flora and fauna of Venezuela are not unlike those of the neighboring states. Maize and manioc are the two chief food products, the former being ground coarse and made into cakes like the tortillas of Mexico. Coal near Barcelona and on the banks of the river Utare, copper at Aroa, and gold on the Yuruari River are the principal minerals.

Nine states are confederated under the name United States of Colombia, whose domain includes the Isthmus of Panama, a mountainous district in the western part, belonging to the Andean chain, and a coast line of about 1,000 miles on either ocean. Its eastern portion is but an extension of the llanos of the Amazon and Oronico. In a spur of the Cordillera, almost under the equator, perpetual snow rests at a height of 23,779 feet above the ocean. The Cordilleras here consist of gneiss granite basalt and porphyry, the formations throughout the territory of the confederation being igneous and metamorphic. Volcanic action continues, and subterranean heat still affects the climate in places. On the heights are glaciers; on the slopes are vast basins of gravel, and rich alluvial deposits in the valleys. There are many rivers, the Atrato forming, with the streams flowing in the opposite direction, an almost continuous water line across the continent. The Isthmus measures 48 miles across at its narrowest part, where is the line of the Panama railway, and where De Lesseps undertook to dig a canal.

The Panama Canal was one of the most stupendous failures the world has ever witnessed. The projectors of the scheme had no conception of the difficulties before them, of the malignant influences that nature could bring forth to defeat their project. The Panama railway, the first to traverse the continent from sea to sea, cost much money and many lives, Asiatic lives alone enough to form an unbroken line of dead Chinamen from ocean to ocean. Hired for the work by bosses, under whose misrepresentations they had been induced to leave their homes, their condition was worse than that of any African slave, their masters having no property in them, or interest in keeping them alive; so that many of the poor wretches, sooner than endure the hardships that befell them, straightway went and hanged themselves.

It was intended that the ship canal should follow the line of the railway, the length being 54 miles, depth below the ocean 28 feet, and width 72 feet at the bottom and 160 feet at the top. Workshops and boarding houses were erected; huge machinery put in place, and 10,000 to 20,000 men were set to work, but did not long remain. Then after $100,000,000 or so had been sunk in the enterprise, and Frenchmen in their own peculiar fashion began to rave over their losses, they seized and imprisoned the aged De Lesseps and his conspirators in the swindle, as they called it, and the Isthmus of Panama remains there to this day; but the big ditch, where is it?

It was an early problem, the attempt to cross the continent in ships, and one that still remains to be solved. No sooner did Columbus find the course obstructed to his Cathay by a continuous coast line, than he attempted to pierce it. So did a hundred who came after him, from Magellan in the south to John Franklin in the north. Saavedra presented a plan to cut through the Isthmus in 1520, which had it been accepted would probably have been successful, the Spanish adventurers of that day being far

superior to modern engineers for work to be accomplished in a tropic clime, whether military or mechanical. Cortes surveyed the Isthmus of Tehuantepec for a canal, and Eads projected a ship railroad. Several lines for canals were proposed by Antonio Galvao and others in the sixteenth century, at the Chagres and Atrato rivers, in Nicaragua, Tehuantepec, and elsewhere. The rivers Amazon, Orinoco, Plata, Mississippi, Hudson, and St. Lawrence were all examined for this purpose; and from the Pacific side, the Columbia River, and the straits of San Juan de Fuca, about which the most extravagant stories were told, more than one of the early navigators claiming to have sailed through the continent at these points and beyond.

Colombia is full of mineral wealth, and but for its climate, deadly to Europeans, would ere this have been made to yield largely. Gold, silver, and copper, iron, lead, and platinum, mercury and antimony, coal, salt, and asphalt, potash soda, and magnesia, limestone and alum, amethysts, emeralds, and amber, are all here in profusion. As the Isthmus is approached from the south, gold is found in all alluvial deposits and along all the streams. The natives used to pick it up, string some of it on their person, and throw the rest away; so little was thought of the stuff before the coming of the gold-hungry Europeans! Large silver mines have been worked there, mostly by Englishmen; there are extensive emerald mines, and out from Panama lie the famous Pearl islands, of which more hereafter.

I do not say that there are no healthy places for Europeans in Colombia; it is in the low swampy lands, covered with an ever-living, ever-dying and redundant tropical vegetation that the air is laden with malaria. In the uplands there is a dry and a wet season, but on the Isthmus it rains at any and all times, the sun drawing the moisture upward only to let it drop again from the surcharged clouds. The lower regions are covered with a tangled mass of vegetation, while in the mountains and upland plains are great forests of logwood, brazilwood, the fustic and the India-rubber tree. Cotton grows wild, indigo is indigenous, and of fruits there are no end. It is unnecessary to enumerate the products of agriculture, which is the leading industry, notwithstanding the mineral resources, for there is scarcely anything which cannot here be easily raised. Manufacturing is of small amount, though weaving, tanning and dyeing are common, and in Bogota are factories for making glass, cigars, sulfuric acid, and alcoholic liquors. Panama hats are fashioned for foreign as well as home use; but most of the national wealth here so abundant is exported in the shape of raw material.

Ecuador, under the equator, the land of burning mountains and trembling valleys, is yet inhabited by man. It is not everywhere hot, the eastern cordillera carrying perpetual snow at a height amid the clouds of 18,000 feet, while of the Quito plain, surrounded by twenty volcanic peaks and 9,500 feet above the ocean, it has been remarked that there is never either spring, summer, or autumn, but each day a combination of all the three. The river and lake systems are of great extent, and cocoa, coffee, cinchona bark, and India-rubber are the chief agricultural and vegetable products. Minerals, though widely distributed, are rarely found in sufficient quantity to be of economic value.

Bolivia contains the famous high-mountain silver mines of Potosi, which with others in this vicinity have given to the world since 1545 more than $3,000,000,000, the cerro de Potosi alone having been perforated by 5,000 openings of mines. Then there are the silver mines of Portugalete Chichas, and Laurani, of Arque Lipez Oruro and Caracoles, besides many placer and quartz gold mines, the copper lead quicksilver and tin mines of Ingavi Potosi and other places, with coal and iron and precious stones, hyacinths and opals in Santa Cruz, and diamonds in Beni.

Chili claims for her seaboard all the region west of the Andes and southward from Peru to Cape Horn. The line is clotted with volcanoes, and earthquakes are frequent. There are numerous lakes and rivers here assisting interior communication, and several passes over the mountains lead into the Argentine country. They are open eight months in the year and traversed only by mules, the highest and most frequented being those of Doha Ana, 14,770 feet above the ocean; Colguen, 14,700 feet: Patos, 13,965 feet, and Uspallata, 13,125 feet. Saline and sulfurous mineral waters abound, containing carbonate of lime, bicarbonate of soda, and chloride of sodium. During the early gold-digging era, Chili sent to California hundreds of ship-loads of flour in 25 and 50 pound sacks.

In the cities of South America, the dwellings built by the Spaniards of the sixteenth and seventeenth centuries after the Moorish style, —adobe and of a single story surrounding a court containing fragrant plants and fountain—are giving place to taller houses with projecting upper stories, though throughout the country, and on the haciendas and plantations, the low rambling style of architecture still obtains. Ruins of churches and convents are plentiful, and many of these edifices still remain in good condition. Every capital city has its principal plaza, with diverging streets laid out according to the laws of Charles V and Phillip II, a cathedral on one side and rulers residence and government buildings on the other. The Panama cathedral, erected in 1760, is one of the largest. The site of old Panama, two leagues distant, being regarded as unhealthy, upon the destruction of that town by the buccaneers it was rebuilt where now it stands.

Asuncion, capital of Paraguay, originally a small fort, became a town of low houses above which towered the ecclesiastical buildings that arose after it was erected into a bishopric in 1547. Caracas, capital of Venezuela, is to some extent governed in style of architecture by its earthquakes; besides the usual public buildings is a national library and three hospitals, one exclusively for lepers. Santa Fe de Bogota, capital of Colombia, stands high in air on a fertile plain, is well built, and has regular paved streets, though the houses are of whitewashed adobe, and mostly of one story, owing to the severe earthquakes. The cathedral, while its exterior is not imposing, contains some attractions within, especially an image of the virgin adorned with a profusion of precious stones. There are in the city thirty churches, a congressional capitol, university, three endowed colleges, school of mines, mint, and other public buildings.

Sao Sebastiao do Rio de Janeiro, capital of Brazil, is situated on one of the finest and most picturesque harbors in the world, 16 miles long, two to seven in width, and with 50 square miles of anchorage. The city has 50 churches and monastic buildings, conspicuous among which are La Candellaria, built in the seventeenth century, and La Gloria, beautifully situated on an eminence overlooking the bay. The Sao Bento monastery has large possessions in lands and mines, being the wealthiest in the republic. The famous hospital sugar factory machinery of Dom Pedro II, La Misericordia, was built in 1841, as was also a large lunatic asylum. From the gate of what was during the dynasty of the doms the royal palace, runs the principal street, the rua Direita, now officially named the rua Primeiro de Marco, on which fronts, besides the convent of Sao Bento, the exchange, custom-house, and post-office. There is an abundant supply of water through several aqueducts, first among which is the one from Tijuca, twelve miles distant, constructed in 1750, and supported in places by a double tier of arches. There is a national library of 120,000 volumes founded by Joao VI, with several literary and scientific institutions.

La Paz de Ayacucho, capital of Bolivia, has still standing many remembrances of the aboriginal Peruvians, not least among which are the roads.

The cathedral here is built of stone. The mining town of Potosi, standing at the foot of the cerro de Potosi, is one of the highest spots on the earth where man hath built his dwelling, being 13,280 feet above the sea, and the cerro 16,150 feet. There is a mint, and besides the miners houses the usual church and government buildings. More conspicuous among these surroundings are the churches, convents, and cathedral at Sucre, where is the seat of the archbishopric of La Plata, and the university of Chuquisaca, the name of the place before it was changed in honor of General Sucre.

Santiago, the capital of Chili, is on a wide plain, with a rocky hill rising in its centre, the two fortresses that crowned it in former days having now given place to a pleasure-ground, with theater, restaurant, and monuments. It has its plaza de la Independencia, and an Augustine nunnery founded by Bishop Medellin in 1576; also a Carmelite nunnery, a mint, congressional buildings, the universities of San Felipe and of Santiago, school of arts, musical conservatorio, national museum, military school, school of agriculture, and a national library. For other recreation grounds there are the Alameda, and a beautiful avenue planted with trees and adorned with statues, among which are those of generals O'Higgins, Freire, San Martin, and Carrera. The city was founded in 1541 by Pedro de Valdivia, one of Pizarro's captains.

Valparaiso has two floating docks, a chain of forts, naval academy, custom-house, and other political, commercial, educational, and ecclesiastical edifices. There are also here wheelwright works, machine and coach-building and government railway shops; also a refinery for the raw sugar brought from Peru. Valparaiso was founded by Juan de Saavedra in 1536. What was left of the place by Drake and Hawkins, and the Dutch corsair Van Noort, who captured it in 1578, 1596, and 1600 respectively, was well shaken by earthquakes in 1730, 1822, 1839, and 1873; and if that were not enough it was burned in 1858 and bombarded by the Spanish admiral Nunez in 1866, when a large part of the city was destroyed.

Quito, the capital of Ecuador, is 9,520 feet above sea level, and within five miles of the Pichincha crater. The houses are of adobe or sun-dried bricks, low and squat, while in all the town there is hardly a chimney to be seen, even the public buildings being seemingly fearful of raising their fronts too high in this region of trembling and unstable earth. On the central plaza are Government house with its spacious colonnade, the palace of the Nuncio, and the cathedral with marble porch; but a finer structure than any is the Jesuit college, now occupied in part as a university. Caxamalca is laid out in regular streets, but the houses are chiefly of mud. The remains of Atahualpa's palace are still to be seen, showing how much better the ancient Peruvians built than the later occupants of the place.

The empire of the ancient Peruvians extended, as we have seen, over a much wider area than the present republic of Peru. Cuzco was the capital of the Incas, and Lima is the modern capital. The former is 11,380 feet above sea level, and on the hill Sacsahuaman, overlooking the city, is the old Peruvian fortress where the Incas used to entrench themselves. The streets are well laid out in squares; the houses which border them partake in architecture of the old and the new, the lower portion being of stone, of the massive masonry of the olden time with a light, Spanish superstructure roofed with red tile. In the cathedral, with its lofty towers is much of interest, and the convent of Santo Domingo occupies in part the site of the aboriginal temple of the sun. Nearby is the cabildo, or government house; the university, founded in 1598; the college of science and arts; and the library

and museum of Peruvian antiquities. The principal plaza of Lima, in which is a beautiful bronze fountain, covers nine acres, and fronting on its several sides, are the cathedral, the archiepiscopal palace, and other imposing structures. The largest of five parochial and 62 other churches and chapels is that of San Pedro, built in 1598, and with 17 altars. The Franciscans have the largest edifice and the Dominicans the finest. Here is the oldest university in America, founded in 1576. There are also some 80 schools, a public library, many religions and charitable institutions, an amphitheater for bull fights which will seat 9,000 persons, and statues of Bolivar who won independence for Peru at Ayacucho and other battlefields.

A thousand purchasers daily attend the market which is supplied with fish from Callao, and fruits and other foods from various quarters. The chief exports are guano, cotton, sugar, gold, silver, hides, and saltpeter. Francisco Pizarro founded the city in 1535, since which time it has suffered much from wars, pirates, and earthquakes. The houses of Callao, the seaport of Lima, and with the best harbor on the coast of Peru, on account of earthquakes are for the most part built of wicker-work plastered with mud. A walled fortress covering fifteen acres is used for a custom-house and there are other forts mounted with guns. Here are the machine-shops and headquarters in South America of the French, German, and English steamship lines to Panama, Valparaiso, and Europe. Five docks have been constructed; a large steam sugar refinery and a flour-mill are in operation. Besides guano, which stands first on the list, Callao exports wool cotton sugar hides silver and gold, and imports cattle wheat and lumber.

Francisco Pizarro belonged to the basest type of the Spanish adventurer. Of low origin, born in bastardy and suckled by a sow, possessed of unflinching courage and obstinate determination, he had also the instincts common to a beast of prey. Escaping from his master, a swineherd, he fled to Seville, took ship to Santo Domingo, drifted thence to Darien, and finally crossed the Isthmus to Panama.

He was more than fifty years of age when he started out on his famous expedition to Peru. Through the influence of a priest, Fernando de Luque, and a comrade Diego de Almagro, he obtained money, and the consent of the governor which he first of all required. In a small caravel, with 100 men and four horses, he set sail for Panama on the 14th of November, 1524. Almagro was to follow as soon as he could equip another vessel. For some years past rumors had been current at Panama, gaining in volume as time passed by, of a people toward the south, more opulent and of higher culture than any hitherto found in the Indies, and great were the expectations built upon the issue of this adventure. Bartolome Ruiz had reported the appearance of a balsa, or raft, navigated by lateen cotton sails, and carrying raw wool; he saw also scales for weighing gold.

The voyage was attended with unusual difficulties. Provisions gave out; the men mutinied, and some returned to Panama; but with the remainder Pizarro continued on his way. Coasting southward they saw evidences of a superior race. On the shore were verdant fields and populous villages; on the sea floated trading balsas with fish, game, pineapples, cocoanuts, bananas, plantains, and maize; there was also a liberal display of emeralds, gold, and silver. At Tumbez was the first beast of burden seen in America, the llama. A native nobleman, or orejo, so called from the large golden pendants in his ears, came on board with a retinue of attendants. Further advance convinced the strangers that they had indeed discovered the pirates' paradise.

But how to enter it and take possession? Here was a handful of Castilians, cavaliers, and vagabonds, whose chief object was plunder. Yonder was a powerful and wealthy people, with organized

government and well drilled armies. Yet the demon of dissension had there been let loose, and this fair land was to be given over to the spoiler. Atahualpa, the reigning monarch, was opposed by Huascar the rightful heir, and while Pizzaro landed and began his inarch. Atahualpa with 140,000 men was advancing on Cuzco to meet the forces of Huascar numbering 130,000. At Caxamalca, Pizarro requested an interview, which with some hesitation was granted by Atahualpa. After much maneuvering on the part of the Spaniards to get him into their hands, Atahualpa was seized during a panic caused by the massacre of his attendants. Pizarro was now master of the situation; for among the Peruvians the person of the Inca was sacred, and notwithstanding the vast army at hand, none dared to move in his behalf lest, as the captor threatened, the king should die. An exploit so brilliant, and yet so infamous, could scarcely have emanated from the swineherd's brain, had not Cortes first put it there.

Now for the harvest, "I will fill this room as high as you can reach with gold if you will let me go" said Atahualpa. Pizarro stood silent, awaiting a higher bid. "I will also fill yonder room twice with silver" continued the monarch. No further bid being made, the Spaniard concluded that this would suffice for a beginning, and so closed with the offer. Two months were allowed the royal captive in which to collect the metal for his ransom. It was understood that hollow vessels were not to be melted down, and all utensils were to be contributed in manufactured form. Valuable jewels were to enrich the collection, and friendship on the part of both spoiler and victim was to crown the promised ransom. Commissioners were sent forth in every direction to get together the treasure. The royal palaces at Cuzco and Quito, and the temples of the sun throughout the empire were stripped of their costly garnishings.

While awaiting this ingathering of wealth, the Spanish soldiers lived like lords; the meanest of them had his male and female attendants, they drank from vessels of gold and had their horses shod with silver; lo the swineherd posing as king of kings!

Yet time dragged; the harvest was so rich and tempting; they might surely help themselves while the Inca was helping them. So under the king’s protection, Hernando Pizarro, brother of the chief, with twenty horsemen raided the country round, while three soldiers were sent to Cuzco, where after desecrating the temple and violating the sacred virgins they returned to Caxamalca with 200 cargoes of gold and 25 of silver, the transportation of which required no less than 900 Peruvians. These proceedings delayed the Incas work, and made it more difficult than he had anticipated; nevertheless the precious piles grew apace and would soon attain the required height.

Before meeting the Spaniards Atahualpa had made Huascar prisoner, and the latter now besought Pizarro to release him, promising to give more than his rival had offered for his liberty. Although kept in close confinement Atahualpa heard of it, and had Huascar secretly put to death; thus Pizarro had the mortification of finding himself outwitted by a manacled barbarian.

The promised measure being nearly complete, the Spaniards concluded to melt and divide the treasure. The native artisans to whom the task was allotted were occupied more than a month in running into bars the immense mass of gold and silver collected.—in value 1,326,539 castellanos, equal in purchasing power to $20,000,000 at the present day.

"It is the most solemn responsibility of my life” sighed Pizarro, as he seated himself in the golden chair of the Inca to preside over the division of the spoils. "May God help me to deal justly by every

man," prayed he; after which invocation the pirate's proceedings might well be watched. First he gave himself the golden chair in which he sat, valued at 20,000 castellanos; then gold bars worth 57,222 castellanos, and 2,350 marks of silver. To his brother, Hernando, was given 31,080 gold castellanos and 2,350 marks of silver, nearly twice as much as was apportioned to Hernando de Soto, who had accompanied the expedition, and who in rank and ability was equal or superior to Hernando Pizarro. Horsemen received each 8,880 castellanos in gold and 362 marks of silver; some of the infantry received half as much, others less. To the church of San Francisco was presented 2,220 castellanos in gold.

Fancying that he saw this great empire about to fall in pieces, and that he could better master the situation with the Inca out of the way, Pizarro determined to give Atahualpa a fair trial and then to put him to death. This was quickly done, especially the killing, the unhappy monarch accepting baptism as the price of kindly strangulation in place of being burned alive. It is said that the gold and silver obtained by the conquerors at Cuzco after the death of the Inca was nearly equal to all that they had previously secured from Atahualpa, being 580,000 castellanos of gold and 21,500 marks of silver. So much for this piece of trickery treachery and murder called conquest, the progress of civilization, conversion of the heathen and the like; let us turn, to other things.

The ancient Peruvians used to worship, besides the sun, a golden wedge. The Incas were not only rulers, but high priests, thus being clothed in both temporal and spiritual power. The walls of their temples were covered with great plates of gold and their public works were not inconsiderable. In constructing the highway, 1,500 miles or more in length and 20 feet wide, through the wild mountainous country from Quito through Cuzco to Chili, heavy flags of freestone were laid; tunnels leagues in length were cut through the solid rock; bridges were built of plaited osiers and hung swinging in the air; up the precipices stairs were cut, and swamps were filled with solid masonry. Stations were established five miles apart and relays of runners carried government and other dispatches with incredible swiftness. They would bring from the ocean shore to Cuzco, a distance of 300 miles, fish that was served for dinner the day after it was caught. Population prior to the coming of the Spaniards was thirty millions, ten times greater than now it is. There was a new apportionment of the land every year, regulated according to the number of persons in the family. This was made in three divisions, one each to the Inca, the sun, and the householder, the first two parts being worked by all the people. Mining and manufacturing were conducted in somewhat similar fashion. Metallic money was not used by the Peruvians notwithstanding the abundance of the precious metals.

Placing under review the topics treated in this chapter, we find the climates of South America almost as great in their variety as the climates of the world. There are the hot seaboards of Colombia, on both oceans, the Darien coast on one side and that of Panama on the other, breathing of miasmatic fevers fatal to foreigners. Venezuela has its three divisions of tierras calientes, or callaidas, tierras templadas, and tierras frias. It is not that the hot region is so very hot, ranging only from 80 degrees to 110 degrees, but rather on account of the decaying vegetation which makes the atmosphere so deadly. The temperate region consists of plateaus standing from 2,000 to 7,000 feet above the sea, with a temperature from 65 degrees to 75 degrees. Here reigns perpetual spring, the air being ever pure and healthy, even the highlands of Quito, Bogota, Cuzco, and Oruro possess delightful climates. Venezuela has but two seasons, summer, or the dry season, extending from November to April, and winter, or the rainy season, from May to October. The average annual rainfall at Caracas is 330 inches east of the cordilleras. In Ecuador are wooded and marshy regions, and in the west lowlands humid and hot.

The great northern lowland of Brazil is very hot, the central and southern highlands are more healthful. In the southern part are the four seasons, though in a less marked degree than in central Europe. In the Amazon valley it is generally hot. The valleys of the Parana and the Uruguay are cooler, and colder still the highlands. The air of Argentina as a whole is good, yet of various temperature.

In southern Patagonia the climate is not so bad as in the same latitude of Labrador, and while Chilian Patagonia is deluged. Argentine Patagonia is mostly dry. Uruguay has on the whole a mild and salubrious climate, the temperature of which ranges from 32 degrees to 88 degrees, rising on the lowlands at times to 100 degrees. Paraguay has two seasons, a summer from October to March and winter from April to September. This, with what already has been said, will suffice for the climates of South America.

Passing lightly over agricultural resources, the products of the rich soil of Venezuela and the wonderful trees which grow there, some producing bread, some material for cordage, many yielding fruit of various kinds, not to mention the rubber tree, the many dye-woods, or the plants yielding gums, resins, spices, and even milk. So of other parts of South America, of which enough already has been said. The natural wealth is beyond words to describe, in extent and variety, and its development is hardly begun. A few words may be added concerning the mineral resources which may be of interest.

The great gold and silver bearing regions of Colombia are Antioquia, Darien, Cauca, and Tolima. The gold mines of Antioquia have been worked for upwards of three centuries, and their products from the time of the conquest exceed $250,000,000; and yet deposits exist which are far from exhausted. There are, besides, large and unknown portions of territory, particularly toward the north of the department, which are believed to contain the precious metals. In 1875 there were in Antioquia nearly 100 lode mines being worked, and some 15,000 men and women employed. In the department of Cauca it is calculated that the value of the precious metals obtained since the conquest has been no less than $242,000,000, of which $126,000,000 came from the Choco mines, and $116,000,000 from mines in other parts. The Isthmus of Darien has been renowned from the earliest days of the Spanish conquest for its gold deposits. During the conquest the Spaniards obtained much of the metal from the natives, and in after years the crown derived a considerable revenue from the mines, particularly those of the Cana district, which for years employed thousands of men. They were not actively worked, however, till the second half of the seventeenth century. The Espfritu Santo was the most valuable one. In 1708 the king’s fifths amounted to $216,000. These mines were several times plundered by buccaneers. In 1684, Harris carried away 120 pounds of gold, and in 1702 another raiding party stole 50 pounds. The yield of the Cana mines came to be 18,000 to 20,000 pounds annually. But in the midst of the greatest productiveness they were subjected to obstructions and troubles, which compelled their abandonment. Indian hostilities rendered it necessary to give up the La Plata and Miraflores mines. Then the cruel treatment inflicted on the poor Indian towns had to natives rapidly diminished their number. Even after negroes were brought from Africa, contribute one out of seven of their inhabitants to work in the mines which service bore the title of mitas. Finally the system was discontinued by royal order in 1729, in these words, "No permita la Audiencia que a ningun indio se le obligue a la labor de minas.” This measure left the mine owners almost without hands. The silver mines of the rich districts of Mariquita and Pamplona thus received their death-blow. D’ Eluyar wrote the viceroy in 1785 that, generally speaking, the mines that the old miners had been exploiting in Mariquita were almost in their primitive state. The war of independence and

subsequent internecine troubles brought the mining industry to a full stop. It has revived but slowly. The Santa Ana silver mine, in Tolima, yielded from 1826 to 1873, $3,500,000, and afterward failed. The Magdalena region has gold, but the deposits are not worked. Fine coal is abundant in the vicinity of Bogota; platinum is likewise found, as also silver and emerald mines. Indeed this portion of the republic possesses great mineral wealth lying dormant. The emerald mines of Boyaca are not worked. From 1800 to 1882 the product of gold and silver in Colombia was $216,000,000, and from 1537 to 1800, $414,000,000, or a total of $630,000,000, of which $74,000,000 be credited to the Isthmus of Panama. Cinnabar and manganese are also reported to exist on the Isthmus, coal in Chiriqui and Bocas del Toro. In 1886 miners and prospectors from the mining districts of the Pacific United States rushed to Panama en route to the gold diggings of Tolima, Antioquia, and the Choco. At the same time two companies were organized in Boston to mine on the Atrato river, and great was the eagerness awakened in the United States to engage in mining in Colombia.

The Venezuelan gold-fields are very rich, though as yet not the most productive. Those of the Orinoco are said to be the richest in the world. Many towns owe their existence to the mines. There is coal near Coro, Asphaltum, copper, petroleum, silver, tin, salt, and sesqui-carbonate of soda are abundant; but these valuable minerals are not worked as they ought to be. There is a pitch lake at the mouth of the Pedernales River on the gulf of Paria.

Bolivia has a wealth of precious metals as well as of several, of the useful ones. There are not only gold and the apparently inexhaustible silver mines of Potosi, but copper, iron, tin, coal, and sulfur. Precious stones, chiefly the hyacinth and opal, likewise are found there. Nitrate of soda abounds, and guano deposits exist on the coast. The latter, however, have recently become Chilean property. The mineral productions of Bolivia have given a very high importance to this portion of America. Mining is, however, in a rather poor condition at present. Gold is found in considerable quantities in the mountainous parts. The Illimani Mountain is supposed to contain much gold. In the seventeenth century an Indian found at a short distance from La Paz a mass of native gold, for which $11,269 was paid, and it finally went into the cabinet of natural history at Madrid. But most of the gold is found in the form of nuggets in lavaderos, or gold-washings, in the beds of rivulets. The most productive are those of Tipuani, streams descending from the snow-capped summits of the cordillera of Ancuna, some sixty leagues to the east of the city of La Paz. These washings were worked in the time of the Incas. The gold-washings and quartz veins of Choquecamata, in Cochabamba, were also famous, yielding down to 1847 some $40,000,000. Several other districts in the departments of Potosi, Chuquisaca, Santa Cruz, and Tarija, are also rich in gold. Most of the mines are abandoned.

Silver at one time was the great metallic production of Bolivia. The mines of the Cerro de Potosi were next in extent and value to those of Guanajuato in Mexico. The records kept at Potosi of the fifths that accrued to the royal treasury from 1545 to 1800 show that no less than $823,950,000 were coined in that period, and if the other products of the mines were added, the aggregate obtained from the mountains of Potosi must have been at least $1,647,901,018 in those 255 years. The Portugalete mines were also very rich. The prosperity of Bolivia, depending mostly on the mining industry, sank very low during the war of independence, and subsequent political troubles. Potosi declined in population from 130,000 souls to less than 10,000. English capitalists tried in vain to revive the industry. Of the large number of forges which operated previously to the revolution, scarcely one remained at work. There are several other silver mines in Chichas, but scarcity of water and their inaccessible position diminish their value. The celebrated mines of Laurani, in Sicasica, are abandoned. In 1870 deposits were

discovered at Caracoles. In 1858 twenty-two companies were working 46 silver mines in the province of Potosi, and the yield in 1856 had been nearly $1,000,000. In late years this mining region has revived, again yielding of its wealth, owing to the enterprise of the Anglo-Bolivian company. The Huanchaca mine produced in 1885 $4,819,146 in silver ores, netting the company for the year $2,080,039. Copper occupies the next rank among the mineral riches of Bolivia. The province of Ingavi, in La Paz, possesses mines from which 15,000 to 20,000 cwts. of copper are annually taken. The departments of Potosi, Chuquisaca, Oruro, and Atacama are also rich in copper. Lead is frequently seen near silver, as also quicksilver. Coal and iron are found in Chuquisaca, Oruro, and Beni. In 1858 there were four tin shafts in the province of Potosi. Precious stones, mostly hyacinths and opals, are found in the department of Santa Cruz, and diamonds in Beni. Nitrate of soda abounds in the desert of Atacama.

The Argentine Republic, as before stated, has alum, coal, petroleum, copper, tin, lead, gold, silver, salt, and sulfur. Coal is in the provinces of Mendoza, Rioja, and San Juan. At the two first named it is abundant and of first quality. Petroleum is found near the city of Mendoza; at the depth of 120 meters the deposit was reached, and a steady stream of pure oil came to the surface. But the great distance from the Plata River renders its ability to compete with the article from the United States doubtful.The whole mineral production of the Argentine Confederation in 1882 did not exceed in value $570,000, of which silver counted for about $230,000; copper in bars for $125,000, in ore $21,800; and tin, some $85,000.

Peru is world-renowned for mineral wealth, particularly in the precious metals. Gold and silver exist in great abundance. The silver mines are numerous and exceedingly rich. There is also quicksilver in the country. Copper, iron, lead, tin, nickel, cobalt, magnesia, aluminum, lime, and sulfur are widely diffused. There are extensive quarries of marble and alabaster. Coal occurs on the coast. There are likewise a number of petroleum springs. Saltpeter is largely produced along the Pacific shores. The richest beds, however, are now in possession of Chili. The Lobos, Macabi, and Guanape islands, are enormous guano deposits. Salt is collected from the salt ponds near Callao. Gold is found in all the passes. Nearly all the mountain streams carry gold in small quantities. In some places this metal appears in quartz. The Carabaya gold mines are quite famous. Silver ores yield from 5 to 50 percent. In the last decade of the eighteenth century there were in operation 70 gold, 34 silver, 40 quicksilver, and 12 lead mines, out of which the Spanish government obtained for many years a revenue of nearly $7,000,000 a year. It is of record that Peru, at the breaking out of the revolution for independence, possessed over 1,000 mines of gold and silver. Mining was discontinued in 1820, and though English efforts partially revived the industry, it went into decadence, because of the disturbed condition of the country. But after 1845—guano having become a great source of wealth—the people awoke to a sense of the importance of developing their resources; improved machinery and methods were employed in the works, and the silver mines began to yield a larger quantity of metal than they had produced in many years. Many new mines have been opened since. The most important silver mines are in Huayllura, Palmaderas, Montes Claros, Carabaya, Jauli, Castro-vireina, Salpo, Ancastis, Chilete, and the famous Cerro de Pasco. This last named district produced from 1630 to 1849, $475,000,000. It has been estimated that by means of a tunnel, 100,000 square yards could be opened in the hill, and $500,000,000 more would be obtained. The value of silver mined from 1630 to 1803 has been set down at $1,232,000,000, of which $849,445, 500 came from the three lodes of Pasco, Hualgayoc, and Huantaya.

It has been said that as late as 1661 silver was so plentiful in Peru that the streets through which one of the viceroys entered Lima was paved with silver bars to the value of $75,000,000. In 1878 the number of registered mines of all kinds was about 15,000, but only about 600 were actually worked. The gold and silver mines at present exploited produce about $6,000,000 yearly, but a very small proportion of which is gold. A large part of this yield is used at home. The chief quicksilver mines are those of Huancavelita and Chota. Lead, iron, aluminum, sulfur, lime, and magnesia occur in various places. Cobalt and nickel are found in Huanta; marble and alabaster deposits are extensive in Puno and Ayacucho; the petroleum springs are in Piura; coal exists in several places, and working the beds promotes activity in other industrial pursuits. A great source of Peruvian wealth, since 1836, has been the guano islands. Mining guano on a large scale began in 1840. The deposits yielded to the Peruvian government from $20,000,000 to $25,000,000 a year. As late as 1873 they were reported to still contain guano to the value of $275,000,000 to $300,000,000. The fact, however, is that the famous Chinchas are exhausted, and the guano of the Lobos, Macabi, Guanape, Punta Alta, Puerto Ingles, Pabellon de Pica, etc., along the southern coast, is inferior in quality. The total amount has been estimated at 1,800,000 tons. Commencing in 1869 with 574,790 tons, the sales declined to 378,663 tons in 1876, 310.042 in 1877, 338,000 in 1878, as appears in private reports.

Chili possesses a variety of minerals, many of which are found in large quantities, as gold, silver, quicksilver, copper, iron, zinc, nickel, antimony, arsenic, alum, bismuth, manganese, sulfur, iodine and borate of soda, niter, coal, cobalt, etc. Copper, silver, niter, and coal are the only ones which to some extent pay to work. The mines are not, generally speaking, worked by the most improved methods. While in California and Australia the mining industry has been declining, greater attention being devoted in these countries to agriculture, the reverse has occurred in Chili. In 1877 the mining exports exceeded those of 1876 by $3,407,000, whereas in the agricultural exports there was a decrease of $1,356,000. In 1875 there were upwards of 30,000 men engaged in mining; the products of which industry in 1878 were valued at nearly $18,000,000. An American company in 1877 put extensive works at Catapilco, some 40 miles north of Valparaiso, with the expectation of getting gold from placer deposits to the amount of $1,000,000 a year during fifty years. The annual mineral yield of Chili is about 160,000 kilograms of silver, 500 kilograms of gold, 40,000 tons of copper, 800,000 tons of coal, 550,000 tons of nitrate. The coal mines of southern Chili have been for several years past acquiring a great importance. They extend along the coast from the province of Concepcion to the straits of Magellan, including some of the Chiloe islands. The oldest as well as richest coal beds are south of the river Biobio at Coronel, Lota, and Lebu; they are worked by the same system employed in English coal mines. Steamers coal at the mouth of the pit, and a great deal of the copper ore that used to be shipped to England for smelting has been for several years past sent to Coronel and Lota for that purpose. The coal production has been growing very rapidly, and may soon average from 2,000,000 to 3,000,000 tons. There are large works for amalgamating silver and smelting ores in Copiapo, Chanarcillo, Carrizal, and Guayacan. Of the metal exports of the republic, copper counts for 70 percent, and silver for 25. Copper mining has lately suffered a setback. Owing to the low price of the metal in Europe, miners were already in 1885 and 1886 turning their attention to gold and silver mining, and a considerable revival in these lines immediately took place. The copper deposits are almost inexhaustible, it is true, but for various reasons—defective mining laws, cost of mining, smelting, transportation to the sea coast, and freight charges to consuming markets—the republic cannot compete with other copper-producing countries.

The chief difficulty is that the mining belt lies in the northern section, as distinguished from the central and southern of the republic, an arid region to which food must be taken from the other two sections; the mines, as a rule are at considerable altitudes, and the mining methods are exceedingly primitive; then again, there are no roads fit for the transportation of minerals; and where there are railways the freight rates are too high to be any benefit to mines of low yield. The country needs cheap railways, and the employment of labor-saving machinery to develop its resources. There are thousands of tons of valuable ore lying on the surface in the old mining fields between Coquimbo and Huasco, awaiting capital and improved methods to yield up its gold, silver, and copper.

Miscellany

"A new world!" Europeans said; yet America is new and Asia and the others old only in imagination; it was called new by the discoverers just as any old thing is new to those for the first time beholding it. As a matter of fact the so-called western hemisphere is older than the eastern in its geological strata, as well as in the works and remains of man.

North America has an area of 8,000,000 square miles, and South America 7,000,000. There is but one-seventh of the two Americas not available for cultivation, the six-sevenths of good land being sufficient to sustain a population of 6,000,000,000, which is four times the population of the earth. The present number of inhabitants does not greatly exceed 125,000,000.

Ustariz, Moncada, and Navarrete, who give the most moderate estimates of any of the Spanish writers, fix the sum received from America by Spain during the 248 years preceding 1740 at $9,000,000,000. Adding the 70 years of output to the time of the revolution would bring the total up to about $11,500,000,000.

Some writers estimated the amount required by Pizarro for Atahualpa's ransom at 1,500,000 piastres, or dollars, and the proceeds of the Cuzco plunder at $10,000,000.

Agriculture in ancient times was brought to a high degree of development, the result of centuries of intelligent labor. In artificial irrigation the Peruvians had not their equal in the world. From the mountains, where the water was gathered into lakes, aqueducts were constructed of large slabs of freestone, canals cut, and subterranean passages made through the rock, some of these artificial water channels being 500 miles in length. The water carried thus to the parched plains below made fertile the soil, which gave great returns and vast wealth to the nation. High above them, on the most elevated plateaus of the cordillera, wheat and corn were raised, and vast bands of sheep and llamas grazed. Ascent was made to these rocky heights by steep paths cut often into the side of a perpendicular precipice, while all the way up were terraces of hanging gardens. The wool thus grown, and the cotton raised in the valleys, were woven into fabrics of finest texture and brilliant colors. The palaces of the Incas were of granite and porphyry; smaller houses sometimes of adobe, and usually of one story. The exterior of all buildings was plain, but within, the walls of the larger edifices were rich in plates of precious metals, and in other embellishments. There were beautiful gold and silver statues, and plants exquisitely fashioned of the same metals, with metallic birds and lizards, highly jeweled and colored, moving through the metallic foliage. The finest edifice in the empire was the temple of the sun at Cuzco, before mentioned. Coricancha, it was called meaning the Place of Gold. Golden is the sun and here on the western wall hung a golden disk, with rays emanating from a human face; and as the first rays of the morning sun struck the burnished metal, a mirror on the opposite wall carried them in every direction, until the whole vaulted arch roof cornice and the innumerable plates and images of gold were bathed in this glowing golden sunshine. It is said that this golden image of the sun was gambled away in a single night by the soldier to whose lot it had fallen.

As of old, the wealth of Peru at the present time is found in its mineral, animal, and vegetable resources rather than manufactures. In the cordillera are extensive mines of gold, silver, copper, lead, and bismuth, and along the streams placer diggings. The sale of guano from the islands adjacent

constitutes the chief source of public revenue. In the province of Tarapaca are great quantities of nitrate of soda, a powerful fertilizer and a source of great national wealth, as also is borax, which, like guano, is a government monopoly. Among the many railways constructed and in course of construction is one across the cordillera, which is said to have presented in the building greater engineering difficulties than did the Mount Cenis tunnel. Nearly all the European cereals and vegetables are successfully grown in Peru, together with many tropical and semi-tropical fruits and plants.

Colombia presents a less diversified surface than any other part of South America. Near Ecuador the cordillera divides, enclosing the Magdalena valley, and on the western side is the Choco mineral region. Upon the eastern branch are tablelands from 8,000 to 14,000 feet above the sea; at 5 degrees north is perpetual snow, the highest peak here being Tolinia, 18,020 feet. The valleys of the Panama isthmus spread out in plains to the Orinoco. Venezuela is mountainous. One-fourth of Ecuador is but little above the sea, but this is more than equalized in other parts where are valleys from 8,000 to 13,000 feet high, and volcanic peaks from 15,000 to 19,813 feet.

As in Mexico, there had been in Peru, when first seen by the Europeans, a civilized people then no longer existing. The children of the sun that is to say, the people of the Incas, took the country from the Aymaras, who had their great temples, palaces, and statues, but who disclaimed being the authors of all this magnificence. The Callahuas, they said, their forefathers, were the true people of the indigenous civilization, and they came from the north, even as had come the Nahuas and the Mayas, to whom, indeed, they may have been related. The Incas built Cuzco, and became great; their people multiplied; so powerful and numerous they became, that when they wished to fight, all the people around being subdued, it became necessary to divide and fight each other under the leadership of two brothers, for so the gods willed it.

By Manco Capac, who founded the dynasty of the Incas, were laid the foundations of Cuzco in the middle of the eleventh century.

The story is told that a band of the Inca's soldiers, heavily laden with treasure which they were carrying to Pizarro, when they heard that Atahualpa had been strangled, buried their loads so that the Spaniards were unable to find them. To this day the natives of the mountains mourn for their beloved Inca, who to them was god as well as man.

The descendants of the old Peruvians hold strictly to ancient customs; they will not sell their stock in a lump, but only by the usual measure, and on the exact spot in the marketplace where their forefathers sold. A Peruvian will steal from the Spaniards, who stole from him all he had; but he will not steal from a Peruvian.

In the days of the Incas, Quito had a population of half a million; now it has 50,000. Factories are numerous, including several flour mills; wages of operatives 12 to 25 cents per diem; woolen blankets, average wage 12 cents; sugar refinery, wages 12 to 25 cents; brick, adobe, tile, pottery, 12 cents; silk hats, 25 cents; felt hats, 12 cents.

Peru used to employ 4,000,000 llamas as beasts of burden. Under the Incas was constructed an aqueduct 360 miles long.

The first cat in South America was given by Montenegro to Almagro, who sold it for 600 pesos. Next came a pair of cats which brought a pound weight of gold at Cuyaba.

Thrice has the native wealth of Peru brought misfortune upon her; first, when Pizarro overturned the Incas and their people when the revenue from for the gold which they possessed; second, the guano islands, which after 1846 amounted to from $20,00,000 to $30,000,000 a year, brought on reckless extravagance, which, with the war, and the loss of this revenue, left the country $250,000,000 in debt that may never be paid; third, the nitrate of soda bed, four or five feet thick and extending along the shore from latitudes 23 degrees to 25 degrees, millions of tons of it, having a present commercial value of from $40 to $60 a ton, and Atacuma alone exporting annually 350,000 tons. This brought on the war with Chili resulting in defeat and loss of all.

It is wonderful, this bed of soft, moist, cheese-like stuff, good for fifty things, and enough to supply the world for ten centuries. What unknown wealth may nature yet have in store, under our feet or over our heads, in the water we drink, or in the atmosphere we breathe!

The loss of property in Peru during the war with Chili was very great, among other places the winter resorts of Chorillos and Milleflores were destroyed. Houses, public and private, were plundered; "The burial of Atahualpa," Marini's great painting, was taken from the walls of the National library but was returned. The war filled the pawnshops of Peru with rich and beautiful things in silver, gold, and costly fabrics, many old and wealthy families being deprived of income by the destruction of their property.

As an example of personal wealth in South America, the Senora de Cousino, of Chili, may be mentioned. She is estimated as worth $200,000,000, her property consisting of copper mines in various places, potteries at Lota, stock-farms and vineyards at Macul, and estates of various kinds in various places.

The high protective tariff imposed of late years has greatly stimulated manufactures in Chili, where now are made glass, paper, cardboard, earthen pipes, enameled ironware, nails, bottles, ice, cement, chemicals, blasting-powder, locomotives, and steam-pumps, besides 100 soap factories, several tobacco factories, sugar refineries, breweries, machine shops, and saw and flouring mills.

Galera, a railway station in Peru, is 15,635 feet above sea-level, a little less than about one-third of the highest ascent made by a balloon.

Mosquitoes are troublesome in South America, so much so that in some places savages torture their prisoners by binding them naked to a tree, where they meet death in horrible agony. The river Volador fairly glitters with gold but no man can gather it but the scaly-skinned lepers. On the Magdalena river boats horses and cattle sometimes die from mosquito bites. The alligators hereabout are plentiful.

In the early fifties "Honest Harry Meiggs" slipped out of San Francisco bay in his own schooner, having on board his family, all of his belongings, and more,—some said $250,000 more and that in coin—but leaving a large amount of unpaid debts. When next heard from he was on the west coast of South America performing marvelous feats in railroad building. He became very wealthy; was highly thought of in Peru; built himself a magnificent palace in Lima, which was afterward occupied by the

presidents, and made overtures to buy forgiveness from the legislature of California, which were not successful.

The completion of the Oroya railroad over the Andes to the Cerro del Pasco mines, left unfinished for lack of funds upon the death of Henry Meiggs, was undertaken by Michael P. Grace, of New York, who for finishing the road at a cost of $10,000,000, obtains what has already been built at a cost of $27,600,000 on a 99 years lease at the nominal rate of $25,000 a year. He has besides possession of the Cerro Del Pasco mines, which from their discovery in 1630 to the year 1824 yielded 27,000 tons of silver. Total length of road 186 miles, the grading and tunneling of 50 miles of which were as costly as on any road in the world. Another of Meiggs' roads was the one built for the Peruvian government in 1876 from Mollendo, the first important port south of Callao, to Bolivia, 325 miles in length, at a cost of $135,000 a mile—that is to say, the cost to the government. Western terminus, 14,500 feet or more above the sea.

The virtue of the bark of the cinchona tree, commonly termed Peruvian bark, from which quinine is made, as a remedy for fevers, was discovered at an early day in Bolivia, then a part of Peru, by a Franciscan friar. The tree was named in honor of the wife of the viceroy of Peru, the countess of Conchona. Indigenous here is also the cocoa plant from which cocaine is made. It is the opium of the Andes, and besides the creative comfort it gives has a sacred character, mingling in many superstitions. The dried leaves are used by the natives of Peru and Bolivia, and also chewed, with a slight mixture of unslacked lime. He who uses the stuff in excess is called blanco coquero, or cocaine fiend.

The finest Panama hats, made on the Peruvian coast from the fiber of the toquilla, or arborescent cactus, and braided under water to retain pliability, occupy six months in the making, and sell for $250 each.

The carved ceiling of the inquisition building at Lima, now occupied by the senate, was brought from Spain in 1560. The San Franciscan church and convent cover several acres, being the largest buildings of the kind in America, and costing more than the capitol at Washington. The only American saint, patroness of both continents, was a pious woman of Lima, canonized by Pope Clement X in 1671, as Santa Rosa.

The cathedral in Lima where lie the bones of Pizarro cost $9,000,000. During Pizarro's time besides the $11,500,000 collected at the time of Atahualpa's death, there was further secured nearly $80,000,000. The viceroy, La Palata, in 1661 it is said, on one occasion set forth from his palace on a horse shod with gold, and having the hair of mane and tail strung with pearls, the street on which he rode to the cathedral being paved with silver ingots.

In monetary matters Chili employs English reckoning; in Brazil the reis is the standard, 4,000 of them being equivalent to $1.

In Valparaiso, vale of paradise, is great wealth, rich men, elegant residences, and fine shops, as is also the case in Santiago. Vessels can lie safely in the harbor ten months in the year; for the other two they must remain at sea if they would escape being pounded upon the rocks. Indeed, there is not a good harbor on the west coast of South America, and but two on the west coast of North America south of Puget Sound, namely those of San Francisco and San Diego.

The city owns the opera house in Santiago, the finest in South America; and it is so said of the hotel there and also of the hotel at Montevideo.

At the beginning of the 19th century the pampas of La Plata were swarming with ostriches and wild horses, the former being the fleeter runner. Their height was that of a cow, and their eggs the size of an infant's head.

There was a square fortification at La Guarda, with two mounted guns for keeping the savages in check.

The undulating heights of Saladillo are covered with saltpeter which looks like hoar frost.

Cordova, the seat of a bishop and having trade relations with Buenos Ayres and Potosi, had in 1800 a population of 1,500 Spaniards and Creoles, and 4,000 negro slaves. The streets were paved, and the cathedral and market place attracted attention.

The plain in which stands the town of Santiago de Estero is white with an incrustation of salt.

Nestling amid citron, fig, orange, and pomegranate trees, on the road from Cordova to Potosi, is the town of Tucuman, where dwell many rich men, who might be richer were they not so lazy and ignorant. At the shafts of the splendid gold and silver mines there, not a windlass is used, all the ore being brought to the surface on backs of human pack animals.

Potosi churches are rich in silver utensils. Pure native silver is sometimes found in its mines. During viceregal times the king of Spain derived a revenue of $5,000 a year from these mines alone.

The mountains around Cuzco are filled with valuable metals. Gold in quartz was so plentiful in Almara that the natives by their rude processes used to send gold enough to Lima to get in return 5,000 piastres a month.

The swinging suspension rope bridges in Bolivia, sometimes 500 feet long and spanning chasms a quarter of a mile deep, did not always seem to afford the safest transit, particularly after the ropes had begun to decay.

The quicksilver mines of Huancavelica, in the 18th century, were worked for the king; there were then 75 furnaces; the product remaining, after waste and robbery, was sold to miners at 73 piastres for 100 lbs.

It was neither difficult nor disreputable, unless caught at it, for the adventurers in America to rob the king of Spain of a good share of his revenues, and it was expected, even by the king himself. But as their majesties had robbed the natives, not only of their lands, but of their bodies and souls and all that the land contained, royalty should not complain.

At Jauricocha was a mass of silver ore half a mile square and 15 fathoms deep.

In 1789 were coined at the royal mint, Lima. 3,570,000 piastres in silver, and 766,768 piastres in gold.

The several viceroys in Spanish America maintained each a splendid court imitation of royalty at home; it was deemed fitting that thus the king should be honored, though he was often exceedingly jealous of his representative.

In early times Spanish galleons alone were permitted to bring European merchandise and carry away the gold and silver from the mines. The people of Spain becoming apathetic, indolent, and indifferent, instead of manufacturing for the American market bought from other nations, and so enriched their neighbors to their own impoverishment.

New Granada, or as the region round has been officially called since 1861, the United States of Colombia, is, as I have said, a country rich in resources but deadly in climate. Every tie used in the construction of the Panama railway may be said to represent the loss of a human life, and thousands of Frenchmen died in attempting the digging of the De Lesseps Canal. There are many healthy places however in the mountains, but everywhere it is wet and hot. The sun acts as a perpetual pump, lifting up the water from two oceans perpendicularly a short distance and letting it drop. Bogota, the capital, is nearly 9,000 feet above the sea, and while perpetual snow covers the high peaks of the Cordilleras, along the ocean shores, and in the sections level with the sea, is a vegetation too rank for man to battle with. Cattle and horses are raised there, likewise maize, tobacco, coffee, wheat, plantins, cotton, cocoa, oranges, lemons, and sugar; while cedar, mahogany, cinchona and ipecacuanha are found in the forests; and in the hills silver, gold, copper, iron, lead, and coal; besides elsewhere emeralds, pearls, and rock-salt.

Famous among the towns early established along the shore of the Caribbean sea from the Magdalena river to the rio San Juan de Nicaragua was Cartagena, rich in the spoils of the natives, the products of the mines, and South Sea commerce. Notwithstanding its walls, 16 feet in thickness, the pirate Morgan found no great difficulty in capturing it. With a sort of poetic justice, though there was little either of poetry or justice in the nature of the bold villain, he measured out to the unfortunate Spaniards who fell into his hands somewhat of those diabolical cruelties which the Spaniards had inflicted on the Indians while robbing them of the gold of which they were now robbed by the buccaneers.

The old inquisition building at Cartagena is now used as a tobacco factory. The fortifications here, once the finest in America, are still imposing. The old ship canal which used to connect the city with the river is filled with tropical undergrowth.

Good land is everywhere in America but with much bad land, intermingled. Somewhat the same may be said of metals though, in more varied degree. While on the eastern side the precious metals are scarce all along the volcanic line of western seaboard, from Tierra del Fuego to Alaska, are rich deposits of mineral wealth; gold scattered by the streams and massed in the veined sierras, silver in big bonanzas and less conspicuous intermixtures; iron, coal, and the rest though in these last the eastern is the richer, section. Brazil is an exception to this mineral law regarding the west and the east, its mines of gold and diamonds being as famous as are those of the western Cordilleras for silver, iron, and salt likewise abound, while among the products of the soil, besides the vast areas of grazing lands, are all the plants useful to man, the exports being different from different localities; from the northern part hides, horses, and tallow; from the middle part rosewood, rice, tapioca manioc, spirits, dyes, drugs, gold-dust, and diamonds; from the northern part, coffee, cotton, sugar, tobacco, and cocoa. In vegetable products America gave to the world maize, or Indian corn, the yam, tobacco, the

potato, and other edible roots and many medicinal plants. Native to tropical America are cocoa, tapioca, vanilla, the pineapple, arrow-root, pimenta, and cayenne pepper. Forests of vast extent and inestimable value are scattered over the continents, pine and cedar in the north with oak, ash, black-walnut, and hickory, and in the south mahogany, rosewood, brazilwood, and various dye-woods. Animals indigenous here are the buffalo, elk, antelope, deer, bear, and a hundred others. Likewise, there are many varieties of fish, birds, and insects some, of no small commercial value.

The Dorado, gilded or golden country, which Orellana, lieutenant of Pizarro, pretended to have discovered between the Amazon and Orinoco, Walter Raleigh declared that he saw from Guiana,—so strong were his eyes—and many pages of rose-colored description were written; but Raleigh's head seemed somewhat astray; in fact he lost it altogether on his return to England. Others place El Dorado on the west side of Lake Parime, with a great river flowing by, and a capital city called Manoa. An account of the early expeditions to the golden temple of Dabaiba is given in the next chapter.

The Panama railway was the first to cross the continent; then followed the Central and Union Pacific, the Southern Pacific, the Northern Pacific, the South American, the Guatemalan, the Tehuantepec, the Mexican, and the Canadian.

Says a French writer, "Le Canal de Suez est l'ouvre de Dieu et de la France," achieved by M. de Lesseps under the benign influence of Napoleon III. On coming to America, France and M. de Lesseps it appears were left more to themselves, and were obliged in due time to retire before the forces of nature in that poisonous clime. Before De Lesseps' failure $250,000,000 was expended on the Panama Canal.

The traffic of the Suez Canal is now ten times what it was at first, and there is talk of enlarging it, or of digging another parallel to it.

Between the Tara and Sardinarte rivers, in Venezuela, are oil geysers, where petroleum and boiling water spout up from cylindrical craters. Then there are the Colombia oil fields. A large bed of asphaltum covers the plain of Ceniza.

In the ancient city of Bocata, the present Bogata, capital of the Chibchans, was a famous temple to the god of agriculture, whither twice a year came votaries from near and far with gifts and petitions. There is here among other monuments a fine statue of Bolivar.

La Guayra, seaport of Caracas, was a noted rendezvous for pirates. It was while his ships were lying there that Drake crossed the mountain, burned the capital, and returned with $1,000,000 booty without the loss of a man.

There are telephones, electric lights, and street cars in most of the larger cities of South America, besides statues and monuments of patriots and learned men in great number.

When very rich gold mines were found in Venezuela, Great Britain claimed them as belonging to British Guiana. Caracas the capital of the republic was founded by Diego de Losada in 1567.

The current coin of Venezuela and its neighborhood is the bolivar, in value a little less than a franc.

Guayaquil, the seaport of Ecuador, ships annually $6,000,000 in coffee, cinchona, hides nuts, and other articles, and receives, from abroad merchandise to the amount of $19,000,000. The cathedral of Guayaquil is built of bamboo.

The Catholic Church is supreme in Ecuador, owns one quarter of the property, rules the ruler, has 272 feast or fast days a year, and a church building for every 150 persons. The country is rich in natural resources, but has few improvements; laborers' wages $2 to $10 a month; men carry 100 pounds of merchandise 285 miles for $2.25.

Many of the more mountainous and out of the way places are visited by peddlers, who carry a pack, trade, doctor men and cattle, and tinker household articles; and so extensive are their travels that they are sometimes four years in making their circuit, during which from time to time they visit the larger towns to replenish their pack and then dive again into the mountains or wilderness.

Infamous ingratitude attended the expatriation of Simon Bolivar, the founder of five republics although his bones are now entombed in marble and his name not only revered but worshipped. "He arado en el marl" "I have plowed the sea," he exclaimed, as he was left by his countrymen, after delivering them from the three-fold despotism of Spain themselves, and their neighbors, to die in exile and poverty.

On the Pampas back of Montevideo and Buenos Ayres a century ago were wild cattle and wild dogs, the former so numerous that 100,000 were annually killed for their hides the latter, the European domestic canine gone astray, living in holes and slaying the wild cattle for food.

Chapter the Twentieth: Central America and West India Islands

Cleon hath a million acres,
Ne'er a one have I;
Cleon dwelleth in a palace.
In a cottage, I;
Cleon hath a dozen fortunes.
Not a penny, I;
Yet the poorer of the twain is
Cleon, and not I.

Cleon, true, possesseth acres.
But the landscape, I;
Half the charms to me it yieldeth,
Money cannot buy;
Cleon harbors sloth and dullness.
Freshening vigor, I;
He in velvet, I in fustian.
Richer man am I.

Cleon is a slave to grandeur,
Free as thought am I;
Cleon fees a score of doctors.
Need of none have I;
Wealth-surrounded, care-environed.
Cleon fears to die;
Death may come, he'll find me ready,
Happier man am I.

Cleon sees no charm in nature,
In a daisy, I;
Cleon hears no anthems ringing
In the sea and sky;
Nature sings to me forever.
Earnest listener, I;
State for state, with all attendants.
Who would change?—Not I.
—Charles Mackay

Deux choses sont pernicieuses dans I'aristocratie; la pauvrete extreme des nobles, et leurs richesses exorbitantes. Pour prevenir leur pauvrete. il faut surtout les obliger de bonne heure a payer leurs dettes. Pour moderer leurs richesses.il faut des dispositions sages et insensibles; non pas des confiscations, des lois agraires, des abolitions de dettes, qui font des maux infinis.
—Montesquieu

Nur klugthatige Menschen, die ihre Krafte kennen und sie mit Maasz und Gescheidtigkeit benutzen, werden es im Weltwesen weit bringen.
—Goethe.

Aurum omnes victa jam pietate colunt;
Auro pulsa fides; auro venalia jura;
Aurum lex sequitur, mox sine lege pudor.
—Propertius

One or more thousand years ago there lived in the mountains and on the tableland of Central America, where the peninsula of Yucatan juts out from the long narrow strip which unites the two Americas, a people, who to judge from the specimens of architecture which they left, were superior either to the Nahuas of the north or the Peruvians of the south. The Mayas, they were called, the somewhat indefinite line of separation from their northern neighbors being at the Isthmus of Tehuantepec.

For into these two great nations, the Nahuas and the Mayas, the indigenous civilization of North America divides itself, the central empire of the former being the Aztec, and that of the latter the Quiche. Tenochtitlan, the capital of the Aztecs, was where the city of Mexico now stands, in the valley of Mexico, or Anahuac, as it was anciently called; the Aztec people occupied the tableland of what is now central and southern Mexico, but their empire extended from sea to sea. So it was with the Mayas in Central America, the Quiche capital being Utatlan, in the present state of Guatemala. Among those who figured in the migrations of the north, with the predecessors of the Aztecs, were the Toltecs and Chichimecs, whose history extending from the fifth to the fifteenth century. I cannot trace here; in the south early figured the Zapotecs and Miztecs.

The great cities, the ruins of which are found embedded in the forests of Chiapas, Yucatan, Guatemala, and Honduras were the work of none of these nations, but rather of some people who were on the ground before them. The art and architecture of these ruined cities are more like each other than like those of the Aztecs or the Quiches, who were occupying the field when the conquerors came.

Tradition says that these great edifices were built by the people who brought hither civilization, under the guidance of Votan and Zamma, and it is certain that the ruined cities of Central America were occupied by their builders at a later date than were those of the north. The Mayas inhabiting the peninsula of Yucatan in the sixteenth century were divided into four families, the Cocomes, Tutul Xius, Itzas, and Cheles; Chiapas was occupied by the Chiapanecs, Tzendales, and Quelenes; in Guatemala and northern Honduras were the Mames, Pocomams, Quiches, and Cakchiquels, the two latter being the most powerful, and ruling the country from their capitals of Utatlan and Patinamit, and fighting for their homes when the Spaniards came until near the point of annihilation.

The oldest of prehistoric American cities was Copan, extending two miles along the bank of the Copan River in Honduras near the Guatemalan line. The most prominent structures were the sacred edifices, enclosed in a wall 900 by 1,600 feet and 25 feet thick at the base, built of large blocks of cut stone. The principal temple was 624 by 809 feet, and in form a terrace. The place of sacrifice was a great circus surrounded by stone pyramids with carved figures at the base, obelisks statues and idols, and steps leading up to an elevation in the center. Utatlan, when the Spaniards came, was not a ruin, but a highly prosperous city, it was said, the richest and most magnificent south of Mexico; but in great monuments and carved stone work it must be regarded as inferior to Copan and Uxmal, though larger than Patinamit, the Cakchiquel capital. Yet Utatlan has a long line of ruined structures, of hewn stone, evidently fortifications, besides which was the great fortress of Resguardo, a square based pyramidal pile, 120 feet high, with three terraces, all reached by steps. The chief edifice there was the castle, or palace of the Quiche kings, covering ground 1,100 by 2,200 feet in area.

Yucatan is full of these great ruins, so much so that the name New Spain was given to the country, because the discoverers who saw them from their ships fancied even in their decadence that they

resembled the cities of their native land, with their regular streets and fine white stone or stucco houses. So brilliant were the reports sent back of what was seen by the expeditions of Grijalva and Cortes, that they were thought to be exaggerated, writers of a late day calling them liars, when indeed the half was not told, because they never saw the half of what lay there buried in tropical vegetation. Although Yucatan belongs politically to Mexico, I speak of the Yucatan ruins here for the reason that they were the work of the Mayas of Central America rather than of the Nahuas of Mexico.

Great indeed was Uxmal of the Mayas, in proof of which behold the debris scattered for miles around the central piles, great trees of the forest standing there in evidence where once was a populous city as an exclamation point of its antiquity! The principal ruins are within a rectangular space measuring a third by a fourth of a mile. First and largest among the edifices was the governors house, standing upon a terraced mound, with sculptured decorations which would have excited wonder and praise in Nineveh or Thebes. Then there was a house for aged women, and a nunnery, smaller edifices, scattered for some distance around. Other ruined cities of Yucatan were those of Chichen Itza, the remains of which still in sight may be included in a rectangle 2,000 by 3,000 feet. Then there was a great nunnery, supported on a mass of solid masonry 112 by 160 feet in dimensions, and 32 feet high. When it is remembered that we are able to give at the present day a description only of what is left after 500 or 1000 years of decay under the overpowering influence of tropical life and a tropical atmosphere, it must be admitted that he who would prove up from existing state of things the actual relative condition of aboriginal civilization is taken somewhat at a disadvantage.

All the higher hospitable lands in this region are full of interesting relics, as at Ticul, Mayapan, Tihoo, Oke, Izamal, Bolonchen, Labphak, Aguardas, Tuloom, Campeche, and Palenque, the last the grandest of any. In the far distant past, before the time which we now call ancient the capital of the great empire of Votan was called Xiballa, which many believe to be identical with the ruins of Palenque, or as the Aztecs called it Culhuacan.

But it is with the stones rather than the name that we have here to do. One of the earliest accounts of these ruins reports 200 buildings extending over twenty miles of country along the Otolum river. The largest structure is called the palace, a pyramidal elevation measuring 260 by 310 feet at the base faced with blocks of hewn stone, and having broad central stairways. Within were four high thick walls supporting the pile. The summit platform sustained the palace, which was 180 by 228 feet in size, and 30 feet high. The outer wall was pierced with forty doorways, each about nine feet square. The outside was covered with a coat of hard plaster, with bas-reliefs, and the building seems to have been surrounded at one time by a projecting cornice. Within were courts and corridors with pillars, stairways, and subterranean galleries, sculptures in low relief, and sculptured tablets. Next in importance to the palace is the temple of the Three Tablets as it is called, the pyramid supporting it being similar to that of the palace. Then there are the temples of Beau Relief of the Cross, of the Sun, and others with statues and engraved hieroglyphic tablets showing no small degree of skill and labor.

Conspicuous among the Nahua monuments in Mexico, are those of Mitla, Centla, Huatusco, Papantla, Xochicalco, and Anahuac, of which of the first mentioned only I shall be able to speak here. Mitla, whose magnificent ruins are in Oajaca, about thirty miles southeast from the capital of that state, was once the great religious center of the Zapotecs, who waged fierce wars with the Aztec powers in Anahuac one or two centuries before the conquest. The walls of the several parts of the principal palace, which rest on mounds of substantial construction, were of hewn stone from four to nine feet in

thickness, each building covering ground equal to about 20 by 100 feet in area. In the construction of the walls, oblong panels of unsculptured hewn stone were laid alternately with open panel work filled with a facing of stone mosaic grecques and arabesques. The larger stones used in the construction of these buildings were blocks of granite, some of them twenty or thirty feet long. A sculptured lintel of one of the doorways measured nineteen feet in length. The floor of the interior was of flat stones covered with cement, and through the center ran a line of round stone pillars fourteen feet high, three feet in diameter, and cut from a single block of porphyry. There were three other palaces at Mitla, of several buildings each, a detailed examination of which tends only to increase our wonder and admiration for the high state of culture attained by peoples isolated from the progressive nations of Europe, and surrounded by what would seem an almost impenetrable savagism. There were likewise here and elsewhere in these parts fortresses, temples, idols, carved statues, bridges, and relics of various kinds, for a full description of which I can only refer the reader to the fourth volume of my Native Races of the Pacific States.

Coming back to Utatlan, the capital of the opulent Quiche kings, we find Kicah Tanub ruler at the time of the conquest, and being on terms of amity with Montezuma, the latter sent him word of his imprisonment, that he might be the better prepared to meet the dreadful evil when it should come. In the center of the city stood the royal palace, and around it the houses of the nobility. Back of these dwelt the common people. There were many imposing edifices built of stone, and plastered, or ornamented with stone and stucco. Next in size and magnificence to the royal palace and palaces of princes of the blood was a college, having 6,000 attendants, and maintained by the government, The castles of Atalaya and Resguardo, four and five stories high respectively, were strong and imposing edifices, the latter covering an area of 540 by 690 feet.

Torquemada says that the royal palace of the Quiches at Utatlan was not surpassed in its construction by those of either Montezuma of Mexico or of the Incas at Cuzco. It was built of hewn stone of several colors, so laid as to produce a striking effect; it was in size 1,128 by 2,184 feet and was divided into six main parts, one for the king, one for princes, one for soldiers, one for officials and judges, two for the queen and royal concubines, and one for the daughters of the kings and princes. The throne stood under a canopy of feathers in four sections; there was an armory, menageries, and aviaries, gardens and baths, and yards for geese-breeding. The city was compactly built, high houses, narrow streets, and surrounded by a high wall and deep ravine. It had but two ways of approach, one a narrow causeway and the other by an ascent of twenty-five steps. Having received from his priests and divines assurances that it would be useless to attempt the overthrow of the invaders, on the approach of Alvarado with his army, Kicah Tanub invited him to enter the city; but fancying he saw signs of treachery Alvarado retired with his force to the grassy plain without, and enticing thither the king and his son, he slew them, defeated their army, and made himself master of the kingdom.

Seventeen kings before Kicah Tanub had lived and reigned since Nimaquiche and his brothers had come down from the north and divided the land between them. Upon the death of Nimaquiche, Axcopil, his son, established himself in Utatlan as ruler of the Quiches, the Cachiquels, and the Zutugiles, and advanced his people in wealth and prosperity. Following his death, the three peoples separated and fell to fighting, after the manner of nations. One cause of war was the carrying off of the daughter and niece of one of the Quiche kings, Balam Acan, by the king of the Zutugiles and his relative. Arraying himself in regal robes with three diadems, and seated in his jeweled chair of state borne on the shoulders of his nobles, with 80,000 warriors he went forth to meet the king of the

Zutugiles with 60,000. At first Balam Acan held the advantage, but only to be overcome and slain at last. In the olden time the king was attended in public by a large following; his lawn flowing white robe was ornament with jewels, and he wore bracelets collar and sandals of gold. Surmounting his golden crown, which was broader in front than behind, was a plume of quetzal-feathers, and he was born on the shoulders of nobles reclining in a palanquin shaded by a feather canopy and fanned by attendants. In the Popul Vuh, the national and religious book of the Mayas, were set forth the rules of public and private behavior; crimes and punishments were detailed, and instructions given as to education, taxation, morals, and the conduct of life. The Quiches had many festivals, some of which were attended by the sacrifice of slaves. Maize and cacao were highly prized, being special gifts of the gods, and affording food and intoxicating drinks.

When Christopher Columbus stepped ashore on the island he named San Salvador, and looked about him in vain for signs of the cities that the ancient and sometimes mendacious traveler Marco Polo had told about,—the cities and fortress of Cathay, the gorgeous palaces with pillars and roofs emblazoned in gold, mountains veined with silver and silver-beds paved with gold, pearls as big and as common as pebbles, sheep as large as oxen and oxen as large as elephants, and luxurious groves and banqueting barges on sparkling waters, and the rest; then going on to Cuba, hoping somewhere thereabout he might find a small mountain of gold-dust from which to shovel in a ship load or two as a preliminary present to the pope toward defraying the expenses of recovering the holy sepulcher from the infidels at Jerusalem; and when instead of realizing these brilliant anticipations he saw only the trees and forest jungle and thick-matted tropic verdure, and for humanity naked men and women squatting on their haunches and smoking the twisted roll of a stinking dried weed of the color of their dusky skins, drawing in the vile smoke upon their lungs, swallowing it, and blowing it out through the nostrils, he little dreamed that in this dirty, disgusting performance lay a subtle essence which should sway humanity more than any holy crusade, more than any religion or other influence of heaven or hell, and set aflow the world's wealth in broader and deeper channels than ever the great Kahn and all Cathay could do.

Yet it was so. Tobacco carried across the sea, quickly spread itself through Europe and came into common use among oriental peoples. All the civilized and half-civilized nations seized it with an avidity which seemed to proclaim it as a long-lost or newly found inspiration of the human organism. In vain laws were passed prohibiting its use, and the Vatican fulminated its decrees against it. In a tract issued by King James I of England, entitled A Counterblast to Tobacco, he calls its use "a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof nearest resembling the horrible Stygian smoke of the pit that is bottomless." Popes Urban VIII and Innocent XI forbade its use. Preachers everywhere declared the smoking of tobacco a sin; the priests of Turkey pronounced it a crime, and Sultan Amuret IV decreed punishment by cruel death. In Turkey the smoker's pipe was thrust through his nose, and in Russia his nose was cut off. Thus tobacco became king, and is king today, above all laws and all religions. And still the question remains open to debate,—but only among those who like it—Is the Cuban weed a blessing or a curse? Should those American savages be damned or deified for giving to all men of all races this everlasting smoke and smell, with its soothing satisfying effects, with the snuffings and chewings and expectorations which sometimes seize its votaries,—for giving this blocked or twisted or pulverized black weed to the world and showing men how to use it? But while awaiting the answer, it is hardly worthwhile to delay action; so we will exterminate the savages and then see what tobacco

will do. At the time of the discovery by Columbus, the weed was in use in parts of America quite remote from its native soil and some claim that it was known in India long ere this; but such could hardly have been, for its use there would have led to its use elsewhere, in every quarter of the globe which could be reached from that point. If money is to be considered, it is safe to say that tobacco costs the world more than intoxicating drink, and drink costs more than food; hence, although tobacco may be productive of revenue and even worthy of government control and monopoly, it is an expensive luxury.

Although in Espanola was found one piece of gold weighing 3,200 castellanos, and miners obtained for a short time from six to 250 castellanos a day, and in the ships which perished with Bobadilla gold to the value of 200,000 castellanos was lost; yet finding the yield of the metal among the islands of these Indies did not hold out, the Spaniards turned their attention to agriculture and the enslavement of the natives under the partition systems of repartimientos and encomiendas; that is to say, the lands were divided among the conquerors, and the native inhabitants forced to work those lands for the benefit of the conquerors. At first under this system they tried mining, and while the gold was easily gathered the returns were large, Espanola alone sending to Spain half a million ounces annually; but soon the work became more severe, and the lordly aboriginals loved not labor more than the chivalrous Spaniard; they would allow themselves to be beaten to death, or they would hang themselves to escape work, until they finally learned that it was easy enough for a savage to die under the benign influence of civilization without resorting to self-destruction. However that may be, the Indians would not work; and so the Spaniards, obliged either to abandon their West India plantations or find others to labor for them, began seizing and bringing in black men from Africa; and there they are yet, their descendants, in no small numbers.

Sugar, corn, cotton, and coffee, were easily cultivated by Europeans in the West India islands, and are the chief products at this day. Cuba is larger than Ireland, though the people are not so political. Sugar comes first, but tobacco stands ever conspicuous as the money-making weed. All tropical fruits flourish on these islands. Jamaica, or Xaymaca as the aboriginal owners called it, the Land of Wood and Water, enjoying still the maternity of England but not the blessings of the slave-trade, is dropping behind in the production of its staples, sugar and rum. Besides cotton, coffee and cocoa, logwood is a conspicuous article of export from Haiti. A sugar plantation in Cuba is to a great extent representative of plantations and haciendas throughout Spanish America.

The dwelling is of one story, having thick walls of stone or adobe with stucco front, enclosing one or more squares, some of them filled with tropical plants, banana, cocoa-nut, and orange trees and flowers, and birds of brilliant plumage; the back plaza or square may be used by the servants, or as stables, and for stores. A veranda extends round the entire court. The windows may have glass with iron grating, or board shutters only the roof, though sometimes thatched, is usually of tiles. Outhouses are scattered on every side, forming a little village, with often quite a large manufactory. The planter may be rich, and his family quarters elegantly furnished, and yet have neither carpets nor curtains. Darwin describes the estates of Manuel Figuireda and Juan Fuentes which he visited while in Brazil, and which in these countries are all much the same.

In his fourth voyage Christopher Columbus and his brother Bartolome attempted settlement on the shore of Veragua, but soon abandoned the project. On the way thither they touched at Guanaja Island, and saw considerable gold there, besides copper, stone, and wood utensils, and earthen-ware. On the

mainland opposite, Honduras, fruit, vegetables, fish, fowl, and maize were given them to eat. Coming along to Nicaragua and Costa Rica, they found pendent from the necks of the natives great gold plates, which augured well. For sixteen of these plates, valued at 150 ducats, they gave three hawk's bells. Corn and fruit and groves of palm were seen on every side, but property of this kind was not available for fitting out an expedition to Jerusalem; besides they did not like this strip of land which barred their progress to the cutting cane limitless property of the great Khan. Ascending the river Veragua, they found gold, but it was not easy to gather in any considerable quantity. It had been previously revealed from on high to Columbus that here were the Ophir mines of Solomon, the source whence the wise man drew the means to build his temple; but there must have been some mistake, thought the admiral of the ocean sea.

I have spoken of gold. And the cry is ever silver and gold! Silver and gold! The image and measure of wealth; the shadow superior to substance, before which throughout the ages all men bow; what magic spells these metals cast upon the destinies of mankind! As there is pleasing fiction in their value, so is there fascinating romance in their story. Here at this hinge on which turn the two Americas, it seemed that not only the dreams of men became discolored but likewise their skin. "In this climate," says Gomara, "as in Peru, the people turn yellow; it may be that the desire for gold which fills their hearts shines forth in their faces."

Rodrigo de Bastidas sailed along the coast of Darien in 1501, bartering beads for gold, which he found plentiful. A dozen years later Vasco Nunez de Balboa crossed the narrow strip which holds together the two Americas, and discovered the Pacific Ocean. There was an abundance of gold in these parts scattered about on the surface of the ground, and hatfuls of pearls at the islands in the bay of Panama which Balboa called the Pearl islands. The natives of the Isthmus grew quantities of maize, which the Spaniards did not disdain to accept when hungry for bread, but they were usually more hungry for gold. In one of his foraging expeditions in the vicinity of Darien, prior to his great discovery, Vasco Nunez encountered the wealthy chief Comagre, who perceiving his appetite for the yellow metal soon collected for him 4,000 ounces of finely wrought gold. After solemnly setting aside the king’s fifth, the remainder was divided among the Spaniards, but in this division a dispute arose, accompanied by loud words and the drawing of swords. Seeing which Panciaco, the chivalrous son of the chief Comagre, stepped forward and struck the scales with which they were weighing the metal, scattering the contents in every direction. "Why quarrel over such a trifle!” he exclaimed. "Is it for this you leave your country, cross seas, and disturb the peace of nations? Cease your voracious brawl, and I will tell you where you may obtain your fill of gold. Six days march across yonder sierra will bring you to an ocean sea where are cities and ships and wealth unlimited."

"Speak you true; what proof have you?" demanded Balboa.

"Listen to me,” said Panciaco. "You Christians seem to prize this metal more than body life or soul; more than love or hate or any other happiness. Some mysterious virtue it must possess to charm men so! We who cannot fathom its subtle power love better peace and friends. I will accompany you and while I fight an ancient enemy, you may secure the gold."

After somewhat lengthy preparations the Spaniards started, 90 in number, accompanied by 1,000 natives and a pack of bloodhounds. They found the ocean and the pearls, but not the cities and ships; they returned well laden with treasure, gold to the value of 40,000 pesos, 800 Indian slaves, a large quantity of pearls, besides cotton cloth and Indian weapons.

While some were thus seeking the Ophir of Solomon, and some the palaces of Cathay's khans, and all were hungry for gold, Juan Ponce de Leon fancied the world as he saw it in Florida fair enough for him without more of the metal than he could use, provided only he could live long to enjoy it. So hearing of a Fountain of Youth he set out in search of it. With a gallant company in 1512, and again in 1514, he waded the morasses and penetrated the jungles of the southeast peninsula, until, instead of finding a fountain of youth, he encountered a poisoned arrow and returned to Cuba to die.

Pedrarias Davila became ruler of this Tierra Firme, called also the Castilla del Oro, making his capital, after hunting Vasco Nunez to death, first at Panama, and then removing it to Nicaragua. To Gil Gonzalez were given by the king of Spain the four ships which Vasco Nunez had made, lying at the Pearl islands, and with them Gil Gonzalez set out west and northward by sea and land. At San Vicente these Spaniards succeeded in getting from the natives 30,000 pesos in gold, and further on the great chief Nicoya, at the gulf of that name, gave him 14,000 castellanos, and six golden idols; "for being now a Christian," he said, "I shall have no further use for them." This was indeed a great proselytizing tour, the priest who accompanied Gil Gonzalez baptizing 40,000 in one day, which must have given him enough to do.

Nicaragua was another great chief whom Gil Gonzalez encountered, and him he converted to Christianity and robbed of 15,000 castellanos. Nicaragua's town stood on a large freshwater sea, into which Gil Gonzalez rode his horse and took possession, drinking of the water. It seems that Nicaragua's gold had not been enough to satisfy the captain, so he now thought he would take his lake. "The pilots I had with me," wrote Gil Gonzalez, "certify that it opens into the North Sea; and if so it is a great discovery, as the distance from one sea to the other is but two or three leagues of very level road." Gil Gonzalez freshwater sea remains still in the same spot, and let us hope the Nicaragua Canal company will soon have use for it.

Many have been the fanciful searches and ignis fatuus flittings hither and thither for gold since the so ardent worshippers of the metal first came to America. We have an example of it here on the Isthmus. In some way the rumor became current, shortly after the time of old Pedrarias, that southeast of the gulf of Uraba, in the territory of the cacique Dabaiba, was a golden temple, where lay hidden stores of wealth that surpassed in volume and value any that Mexican or Peruvian had ever dreamed of. This golden country and treasure-house were guarded by a rugged sierra, which in turn was guarded by many a tangled jungle and morass; so that while sometimes the native, with his light portable canoe, and leathern lungs tanned by pestiferous airs to withstand the deadly malaria, might with difficulty make his way to the mountain, it was next to impossible for the Spaniard with heavy armor and cumbersome accoutrements to do so. Perhaps rise was given to the rumors of the existence of the golden-temple of Dabaiba, which cost the lives of so many Spaniards, by a discovery made near a place of worship in the valley of the Cenu river, by the colonists of San Sebastian, of numerous tombs, in which gold and gems and armor had been found plentifully scattered among the chiefs and their wives sitting thus in state beneath the ground for centuries. Indeed, all the way from Panama to Nicaragua, particularly in Chiriqui and Costa Rica, graves of an extinct people have been found in which were interred with the occupant large quantities of gold ornaments. These graves have given up of their contents gold to the value of over $1,000,000. The Chiriqui graves, besides gold ornaments contain fine pottery. In the graves of the Nicoya peninsula are found tools and ornaments of jadeite. He who loves to indulge his fancy may go back ten or twenty centuries to the time when the mound-builders of Ohio began their long pilgrimage to the southwest, stopping at intervals on the way, at the

Mississippi, at New Mexico, resting long in the valley of Anahuac, and longer still in Yucatan and on the mountains between Chiapas and Guatemala, building there great stone edifices, and making for themselves mammoth stone gods, elaborately carved; then on the tableland of Central America for a time, finally to reach the narrow lowlands of the Isthmus, there to lay themselves away with all their trinkets all upon them, only to be robbed of them centuries after by human hyenas of the European type.

Two facts are quite clear in this connection, first that these old bejeweled bones belonged to a people in no way related to the present wild occupants of these parts, some of whom have never to this day been subdued by any European conqueror; and secondly, that these Indians do not regard with favor the white man's desecration of the dead. As for the savages themselves who lived there when Columbus called, if the admiral, his brother, and son may be believed, they cared too little for gold and regarded the possession of it with too much indifference to take the trouble to gather and bury it with their dead.

But to return to our tale of the golden temple of Dabaiba. Thus it runs. There was a captain of infantry at San Sebastian, a post near Darien, whose name was Francisco Cesar. His gallantry and courage had gained for him the confidence of his men; so that when one dull day he proposed the desperate adventure of going in search of the golden temple of Dabaiba, he found supporters. A hundred of them set out one day in 1536, twelve years after Pizarro's performance, eighty foot and twenty horse. Westward they journeyed ten months through a trackless wilderness, until they came to the valley of Guaca, when they were attacked by 20,000 natives. Soon they were surrounded, and all hope of retreat cut off, when in the heavens they saw the image of Spain's patron saint, and three hours afterward the good Spaniards were at liberty to look about them for gold. They could not find it. That is to say, there was no golden temple filled with treasure in sight, but they found a crumbling sepulcher containing treasure to the value of 30,000 castellanos, which was better than nothing. This they did not scruple to take; and all that were left of Cesar's band returned to San Sebastian.

Then came forward Pedro de Heredia, who with 210 mail-clad men set out from the same place the same year, and following the river Atrato came presently to a dense forest, through which he must cut his way or turn back. He opened a path through the matted underbrush, cut down trees and made rafts and bridges. and all the while the rain fell in torrents, while poisonous reptiles crawled round them, and stinging wasps and mosquitoes filled the air. When they had got enough of it, they went back to San Sebastian, and the golden temple of Dabaiba remained where it was.

Francisco Cesar tried it once more, and failed again. Then the licentiate Juan de Badillo, with 350 Spaniards, besides Indians and Negroes, and 512 horses, proceeding from Darien came to the valley of Los Pitos, where was a fort defended by a large force of natives. After an attack, the savages giving way, the invaders continued their march, and in due time came to where the golden temple of Dabaiba should be.

“Where is it?" they asked of a friendly cacique. "Where is the treasure?" "Treasure?" he replied, "what want we with treasure as you call it? If it be gold you mean, we pick it up as we have need of it; look under the rocks in the riverbed, and you will find all you want."

The achievements of Columbus resulted in little benefit to himself or his descendants, except that they are permitted to call themselves dukes of Veragua, if that is any satisfaction. When in 1540 Diego

Gutierrez became governor of that densely wooded country between Veragua and the river San Juan, called Nueva Cartago, now Costa Rica, the region was thought to be rich in gold. It had been surmised that Montezuma had once drawn considerable supplies from there, but the actual mineral wealth of this section does not bear out the idea. For six weeks in the year, when the galleons from Spain were in port, merchants and artificers from every quarter congregated at Portobello.

Upon the arrival of the galleons the treasurer, contador, or factor, was ordered by the governor to proceed thither, taking with him the deputies of the other two officials. When the gold and silver had been put on board the galleons, and the commodities on the other ships, all were visited by the royal officers to see that the king was not cheated—that is to say by anyone except themselves, or without a proper consideration. The coming and going of the annual fleet was a matter of the utmost solicitude to the crown and to shippers. Many a treasure-laden craft either foundered at sea or fell a prey to buccaneers, and the safe arrival of a convoy was heralded with joy. Smuggling was largely practiced; in 1624 the records show that out of $9,000,000, worth of goods which came into Panama, duties were paid only on $1,500,000. As time passed by the traffic across the Isthmus became great, as not only the gold and silver from the west coasts of South and North America was brought to Panama and thence transported to Portobello or Nombre de Dios on the Atlantic side, thence to be shipped to Spain, but the large cargoes of silks and spices from the Philippine islands also found this way to Europe. It was the good Las Casas, they say, who in his zeal in lessening the wrongs of the natives fell into the other extreme, and laid the burden of the poor Indian on the backs of the tougher African. At all events negro slavery came into vogue in the islands and on the Isthmus, and so severe were their masters that during the middle part of the sixteenth century, many of them escaped to the mountains, became outlaws, and preyed upon the Spaniards. At that time the woods around Nombre de Dios swarmed with them, and many of the treasure-trains fell into their hands. They even defeated the soldiers sent against them, having great advantage in their use of poisoned arrows shot from their hiding places. In these encounters no quarter was given on either side. And it was in the islands as on tierra firme, hundreds of these outlaws banded and became a terror to Europeans. In 1596, the cimarrones, as these black banditti were called, in company with the buccaneers, or white robbers, that is to say mostly white, and generally sea-roving, opened a road from their rendezvous, which indeed might more properly be called a town, to Chagre river, the better to facilitate the disposal of their booty. Thus we have here the beginning of the African slave-trade, which assumed such giant proportions in America, and which cost the lives of millions of her noblest sons in its extermination. At the time of which I write, it required, under Spanish law, to engage in the importation of slaves, a royal license, jealously guarded, and seldom if ever granted to Spain's ancient rivals, the Portuguese, but freely bestowed on the English, who gradually monopolized the trade. So great were the profits in this traffic, that Portuguese and English alike were found continually violating the law regarding it.

So it came to pass that round this narrow strip of land had come to revolve the commerce of the Indies, islands and firm land from the shores of Asia to Spain. Portobello became an important place, as between Panama and this port passed for a time the wealth of the Spice Islands on the way from Asia to Europe. And as in the case of individual men who grew too great, the jealousy of Philip began to show itself in regard to Panama and Portobello and Nombre de Dios, and during the seventeenth century galleons from the Philippine islands with merchandise for Spain went to Acapulco instead of Panama, and their cargoes were carried through Mexico to Vera Cruz. In 1589, ninety-four richly laden vessels arrived at Panama; in 1605 there were but seventeen ships arrived. The profit on Asiatic

goods sent to Spain via Panama had been six fold; now by way of Acapulco it was reduced one-half. True, American productions interfered somewhat with the early extravagant profits, as for example wine, leather, and oil from Peru, soap and pitch from Nicaragua, wax from Campeche, cordage from Guayaquil, manufactured cloths from Quito, and silk and woolen goods from New Spain. Peru furnished a good wine, but no wine could be drunk on the Isthmus save that which came from Spain.

Pearls and gold were still among the leading products of the Isthmus, and the most valuable fisheries were at the Pearl islands of Vasco Nunez. Diving for pearls was performed by Negroes chosen by their masters for their dexterity as swimmers, and the ability to hold their breath under water. From twelve to twenty under one overseer formed a gang. Anchoring in twelve or fifteen fathoms of water, they would dive in succession, and bring up as many shells as they could gather or carry. It was a laborious calling, and attended with great danger from the sharks. After the divers had collected a certain quantity of pearls they were allowed to sell what more they gathered, but only to their masters and at a fixed price. Richard Hawkins describes one of these pearls, which became the property of Philip II, as of "the size of a pommel of a ponyard;" weight 250 carats, value $150,000. These islands at that time made Panama and her people rich, Seville alone getting from there 600 pounds weight, some of them as fine as any found in Ceylon or the East Indies. After the natives had been stripped of their surface-pickings, mines were found and worked in different parts of the Isthmus, notably in Darien, where one governor reported gold so abundant as to be "weighed by the hundredweight." At Veragua there were 2,000 men, Indians and Negroes, at work for the Spaniards at one time. Dampier reported them "the richest gold mines ever yet found," and Ogilby says "the Spaniards there knew not the end of their wealth." No wonder then they imagined Veragua the veritable Ophir of Solomon. The yield however did not prove permanent, and in 1580 there were but four of these mines in operation. Then the people turned their attention elsewhere, in particular to Honduras, which besides had a much better climate. "The gold and silver of these parts" they said "are as nothing to the mines of Honduras, which if worked by Negroes, with the aid of quicksilver, would give your majesty a kingdom thrice as rich as Spain."

Francis Drake, "the introducer of potatoes into Europe in the year of our Lord 1586," as the statue in Offenburg hath it, began his piratical career on the Isthmus under letters of marque from Queen Elizabeth. Entering Nombre de Dios at night at the head of his band, a rush was made for the treasure-house, where was stored the metal from the mines awaiting shipment to Spain; but the invaders were beaten off by the inhabitants. A watch was placed at Cruces for the treasure-trains from Panama, and a capture of several Spanish vessels was made at Cartagena. After the loss of many of his men by fever with the aid of the cimarrones Drake crossed, the Isthmus and narrowly missed capturing a treasure-train of fourteen mules laden with gold silver pearls and jewels. Better fortune attended another attempt near Nombre de Dios, where was captured a train of three companies, two of seventy mules each and one of fifty mules, laden with nearly thirty tons of silver and gold. Three years later John Oxenham, who had been with Drake, planned a daring raid. Landing on the north side, he beached his vessel, covered her with boughs, buried his cannon, and guided by cimarrones to a stream flowing wouthward, he built a pinnace, and descending the river reached the Pearl islands, which lay in the track of vessels conveying treasure from Lima to Panama. Prizes were made of two vessels containing gold and silver to the value of nearly $300,000, but on the way back the party was attacked by a force from Panama and destroyed.

Three other expeditions were made by Drake before death terminated his career at Portobello, shortly after remarking to one of his officers, “God hath many things in store for us; and I know many means to do her majesty service and to make us riche, for wee must have gould before wee see Englande." The first was his voyage of circumnavigation, in which he captured much treasure on the coast between Peru and Panama. The second was in 1585 when Elizabeth determined to strike Spain's New World possessions a fatal blow. With twenty-five ships and 2,300 men Drake took Santo Domingo and Cartagena, which were ransomed the former for 25,000 ducats and the latter for 145,000 pesos, and after some minor captures, and the loss of 750 men by sickness, returned to England. The third expedition consisted of sixteen men of war, twenty-one other vessels, and 2,500 men, and ended in failure. After this came William Parker from England with two ships and 200 men and captured Portobello and the pearl fishery at Cubagua, besides many ships.

All through the sixteenth and seventeenth centuries the raids of the pirates and buccaneers infesting the islands and mainland of the Indies were very severe. There was then in the country much floating wealth not difficult of capture. Says the Englishman Gage, regarding his journey through Central America: "We came at last through a thousand dangers to the city of Carthago, which was found to be not so poor as in richer places, Guatemala and Nicaragua, it was reported to be. For there we had occasion to inquire after some merchants for exchange of gold and silver, and we found that some were very rich, who traded by land and sea with Panama, and by sea with Portobello, Cartagena, and Havana, and from thence with Spain." French corsairs hovered along the coast of Tierra Firme as far as Mexico, and English, French, and Dutch filibusters rendezvoused at Santo Domingo. Many towns and cities were captured and recaptured several times by the freebooters, after intervals allowing wealth to flow in once more into the depleted coffers. Leaders by the force of their own powers or by election, came frequently to the front, and the deeds done by these fiends incarnate are not surpassed for inhuman cruelty by any on the pages of history.

Conspicuous among these leaders was Francois L'Olonois, who hacked in pieces his captives, having sworn never to give quarter to any Spaniard. With six ships and 700 men at his command, he invaded Central America, destroying villages, sacking storehouses, and murdering the inhabitants. At the head of fifteen vessels and 500 men was the leader Mansvelt, who established a buccaneer settlement on the island of Santa Catarina, and thence made raids on the islands and mainland. Out of this hot-bed of villainy came St. Simon, Henry Morgan the Welshman, and other notable high priests of Satan. On the death of Mansvelt, in 1664, Morgan was chosen his successor. With twelve ships and 700 men, he thought at first to attempt the capture of Havana, but the enterprise appearing too formidable, he turned his talents to the plundering of Puerto Principe, an inland town of Cuba grown rich by traffic in hides, and one never yet sacked by the sea-robbers. There they secured only $50,000. With nine ships and 450 men Morgan next sailed for the coast of Castilla del Oro bent on the plunder of Portobello, then one of the strongest of Spain's fortresses in America. Amidst the most horrible atrocities the place was finally taken, and spoils secured to the value of 260,000 pesos, besides large stores of silk, linen, and other merchandise. Increasing his force to fifteen ships and 960 men, Morgan plundered the town of Espanola, securing booty to the value of $250,000. Finally with thirty-seven ships and 2,000 men Morgan set out for the capture of Panama, Vera Cruz, and Cartagena, in which expedition the old city of Panama was razed to the ground, and was never rebuilt on that spot. The treasure brought away was small for the destruction of life and property attending the bloody work. Volumes have been filled with the horrible atrocities of these sea and land monsters in these

parts, but I can follow them no further here. The exploits of the gentle Captain Kidd were mild in comparison. The South Sea was filled with corsairs and freebooters at one time, among whom were Hawkins and Dampier and Sharp. George Alison took the track of the Spanish galleons between Manila and Acapulco, and secured rich prizes.

In the making of the two Americas, nature seems to have been somewhat undecided whether to join the continents by way of Panama and Central America, or cross over from Venezuela to Florida, or both, filling the intervening space with mountains or leaving land-locked the Caribbean Sea. Having determined on the former course, the latter line remains to this day unfinished, or else split off, partially sunk, and broken into 1,000 islands. With a current more rapid than that of the Mississippi or the Amazon, and a volume a thousand times greater than both together, the Gulf Stream by the influence of the all-compelling sun, sets forth from its islanded niche, and coasting northward sweeps by Newfoundland, bathing the otherwise uninhabitable British Isles in tropic-tempered moisture. The same service the Japan current performs for the western shore of North America, giving to Alaska her forest-feathered slopes and to California her delightful air and hazy sunshine.

To him who approaches on the wonderfully blue water any of these tropical isles is wafted from the land a soft fragrant air suggestive of earth and plants and tropical fruits and flowers. The sky may be clear, but more likely a little clouded with an atmosphere humid if not hazy. Or if peradventure the water be green, and cannibals keep the island, and sharks play about them, the tropical odor from the bunch of bright foliage comes just the same. For some men were born to eat, and others to be eaten; only the wasteful hunter, Alexander Caesar or Napoleon, kills more than he can eat. Travelers hither love to recite how, when the steamer comes to anchor in the port, naked black boys swim in the water around the ship clamoring for coins to dive for, and the passengers to whom this sort of thing is new empty their pockets of small silver, throwing out one coin after another, for which the swimmer instantly dives, catching it and putting it in his mouth before it has sunk many feet in the transparent water.

Though Haiti is but 400 miles long its coast line measures 1,500 miles. Three chains of mountains cross the island from west to east, between which are broad plains and well watered valleys. Cuba has a low flat coast, the interior rising to 2,000 or 3,000 feet, the Pico de Tarquino being 7,670 feet high. Porto Rico has a hilly interior, interspersed with plains, the Yunque summit of the Luquillo having an altitude of 3,678 feet. The low lying Bermudas rest on a coral reef; the Bahamas likewise without high hills, and in common with most of the other islands are of calcareous formation. The eastern part of Jamaica is mountainous; western part level, and near the sea low. The Blue Mountains, running east and west, have peaks 7,000 feet high. Three ranges cross Trinidad, one of them in places 3,000 feet in height. Toboga is a mass of rocks; the Barbados have some beautiful scenery; Dominica, St. Christopher, Montserrat, St. Vincent, Guadeloupe, Martinque, St. Thomas, St Croix, and St. Eustache are all more or less hilly or mountainous inland.

Although the soil of the Bermudas for many purposes is poor, yet esculent plants flourish, and citrons and limes, coffee indigo cotton and tobacco, grow spontaneously.

The Bahamas have a thin sandy soil, in which however sugar-cane and pineapples, oranges, bananas and cocoanuts, cotton and tobacco, corn and vegetables do well. The wealth of the sea is here at hand, fish, turtles, and sponges abounding. Besides some good agricultural lands, Jamaica has a wealth of woods, mahogany, lignum vilae, ebony, logwood, balatta, rosewood, satinwood, fustic, and cedar.

Pimento is indigenous. In a word, here grow all the tropical fruits and plants, and also in the Leeward Islands, where are many sugar factories, this being the leading product also in the Virgin Islands, Dominica, Tobago, and the Danish Dutch and French islands. Besides forests of pine woods St. Vincent and St. Lucia produce sugar, cacao, spice, rum, arrow-root, and cotton. Cuba has fine forests and grows the best tobacco; also sugar-cane, coffee, vegetables and fruits, and has many minerals, though not as a rule in large deposits. The highest point on the island of St. Thomas is the top of a submerged chain of mountains, the dome-shaped hills on either side being highest at the western end. On two of the hills are towers Blue Beard and Black Beard, both used now as residences. Unless a hurricane be playing, two hundred ships may ride safely in the port, which is a busy place considering the size of the island and the number of the people living on it. But the towns of the West Indies have little to boast of. Kingston will show you a club-house, museum, court house, market, and Mico institute. The port of St. Thomas is quite lively for one of its size, but it is not very large and the island exports little or nothing now, though when African slaves were cheap sugar was raised there. It is rather a port of call than of commerce and with the whole island and its two little brother saints, to whomsoever belonging it is property better sold than held.

There is a Jew's synagogue at St. Thomas; the show house of the place is the one occupied by Santa Anna when exiled from Mexico. A small public library, a theater and a hospital amply suffice for the few cultured people of the place. Sharks fill the water and pestilence too often overspreads the hot land, with an occasional cyclone and hurricane. Upon the higher ground the nights are cool and the air pure; the few sugar plantations that remain will produce for three or four years without replanting.

St. Pierre, on the picturesque island of Martinique, the commercial city of the French West Indies, is a well-built town with paved streets and shaded avenues, schools public library and other institutions of modern progress. It may be remembered that on this island were born for the weal or woe of France two notable women, Maintenon and Josephine, a marble statue of the latter standing in the Place de la Savane at Fort de France, the political capital of these French isles. Martinique is honored by a half dozen volcanoes, called extinct, though Mont Pelee sent forth fire and smoke as late as 1851. Besides the staples coffee, cotton, sugar, and rum, Martinique produces tobacco bread-fruit bananas and mianioc. The flora of the island is gorgeous, containing forty varieties of the mango, and a magnificent muscatel grape, not to mention the feathery bamboo, royal palm, and many flowers from which perfumery is made. Though used by some as a health resort, the island is by no means free from fever, smallpox, and other epidemics, not to mention hurricanes and earthquakes, scorpions, tarantulas, and the rat-eating fer-de-lance.

The English, once Portuguese, island of Barbados is one vast sugar plantation, cane being cut every year from 30,000 acres, yielding 70,000 hogs-heads of sugar, and keeping in operation twenty-five rum distilleries. Nearly all West India island rum takes the name Jamaica, by reason of reputation; much of it goes to Africa, the good people of Boston contributing some of the still famous New England article, to aid in the destruction of the black man they so coddle at home—just as opium was forced by Christian England on China to the destruction of the yellow man. All commerce is consistent, and piety also, where money is concerned. Bridgetown is not especially attractive; its ice-house, however, is well sustained. All these island towns have their ice-house, a kind of drinking and cooling off rendezvous, where artificial ice and fancy drinks are made and sold. England's glory is set up in these hot latitudes by an atrocious bronze statue of Nelson in the Trafalgar square of Bridgetown.

There is a Codrington college here, and a Harrison College. Some call the country healthy, but fevers and leprosy are common, and the two tornadoes which broke the record were, one in 1780 which killed 4,000 persons, and one in 1831 which swept away 2,000 lives and $10,000,000 worth of property. At the same time to make matters more interesting Brimstone Mountain, on St. Vincent Island, sent forth flames and ashes covering the country around. Colored men thrive, several who were born slaves being now among the most prosperous planters; donkeys also abound in all these islands.

The cities of Cuba display some points of interest. Havana has a fine harbor, the entrance guarded by the Morro Castle, with its plentiful supply of guns, its heavy walls of rock and mortar, and its grim dungeons, once deemed impregnable, but no more than a plaything before the fire of modern artillery. On the opposite side is the frowning battery of La Punta, and within are the fortifications of Los Cabanas and the forts of Casa Blanca and San Diego. All is life and gaiety in the city. El Prado is the promenade of Havana; in the central park is a statue of Isabella, and not far away the winter palace of the governor, plaza, bishop's garden, opera house, cathedral, and other notable places.

In Central as in South America, the Cordillera runs near the Pacific side, but dropping its flat tops into temperate climes. The surface throughout is uneven; of the volcanoes thirty are active, and earthquakes are frequent and disastrous. So throughout the more northern regions, the great southern cordillera of the Andes, coming to the Panama isthmus descends into broken hills, but soon rises again into the Central American and Mexican tablelands, and on reaching California separates in the two Rocky and Nevada chains, which roll on to the frozen ocean. Of the five republics of Central America, two, Costa Rica and Nicaragua, extend from sea to sea; Honduras borders mostly on the Atlantic and Guatemala and Salvador on the Pacific. On the Isthmus and in Costa Rica are mountain peaks from which on a clear day both oceans may be seen. Central America has fifty volcanoes, many of them not yet extinct; the borders on both oceans are very fertile, but hot, malarious, and exceedingly unhealthy for any but natives or well acclimated foreigners; the habitable and salubrious interior tablelands are from 3,000 to 6,000 feet above sea level. The whole political division is simply an isthmus, of varying width and interior heights; it has communication by steamship with every quarter; there are a few railways, some short pieces of wagon roads, but inland traffic and transportation is performed mostly by mules, mozos, and natives, the last named carrying 100 pounds twenty-five miles a day for one real. All the coins of Mexico and the United States circulate here as money, but the Peruvian silver dollar seems to be as plentiful as any. As a whole it is an agricultural rather than a mineral country, though Costa Rica derived its name of rich coast from the gold which was found there and Honduras, besides its priceless forests of rare woods has an abundance of coal, iron and lead, gold, silver and copper, zinc platina and quicksilver, asbestos opals and marbles. It is a land teeming with natural wealth and resources, and might supply the world with coffee and all the tropical products, were it occupied by an energetic intelligent and progressive people.

Under the king of Spain, the present five republics were five provinces each in charge of a governor and all under a captain-general, or viceroy, whose government was in Guatemala; it was called the viceroyalty of Guatemala, and was responsible only to the home government, just as were the viceroyalties of Mexico and of Peru. After independence in 1823 these states federated under the name of United States of Central America with constitution and executive and other offices and law makers similar to those of the United States of North America. But this confederation was continued for only sixteen years, after which a separation occurred, unsuccessful attempts towards union having

been made since then. All these years the country has been troubled with chronic revolution, which, though unattended by much bloodshed, wrought injury to the country, preventing industry investment and development, and giving the land over to rabble rule, the dictator overthrown being succeeded by the dictator overthrowing, each draining the country of such resources as were left him by his predecessor, until men of means were glad to escape with any portion of their property still left to them.

Some progress, however, has been made toward more rational methods. By treaty of 1889 the five republics agree to settle all disputes by arbitration; to send delegates to an annual meeting for the consideration of matters of mutual interest; no one to enter into any foreign alliance without the consent of all,—a good beginning toward ultimate union.

Three attempts have contributed to make the capital city of Guatemala; the first, founded by Alvarado in 1524, was flooded to its destruction in 1541; a second, then built near the old site in 1773, was destroyed by an earthquake; then was begun the capital of today, 30 miles away. In the days of its glory Antigua, or old, Guatemala, as it is now called, was the third city of the two Americas, Mexico, and Lima being alone its superior. Hither from the old world came noble families, cultivating large plantations of sugar coffee and cochineal, and building for themselves beautiful city residences. Schools and colleges were established, art, science, theology, inquisition, and all so that for two centuries old Guatemala was not only a center of commerce but a seat of learning, the Athens of America, its 150,000 inhabitants regarding themselves second to none in points of prosperity intelligence and happiness. These Guatemalas were all regularly laid out in broad beautiful streets and plazas, the site of old Guatemala being particularly charming, situated as it was on a fertile plain, with the restless rumbling mountains Agua and Fuego on one side and a wide sweep of glistening verdure on the other. The old city, its great palace in ruins, is still for many a favorite dwelling-place, notwithstanding the so treacherous infernal fires contiguous. Food is abundant and cheap; house and raiment are secondary considerations; a supply of good water is obtained from the rio Pensativo, which comes in graceful curves from the mountains. The new city is supplied by an aqueduct fifteen miles long, begun in 1832, and completed at a cost of $2,250,000.

It was Alvarado's Guatemala which was overwhelmed with sand and water from the mountains, the second one being known as Antigua. With thousands of natives to help, Alvarado spent fifteen years in building his city, a fine cathedral being the first structure, and which was buried to the roof in the day of the great destruction. When years afterward the sand was cleared away the building was found uninjured, owing to the protection of Santiago. Alvarado's palace was also buried and in it his wife and much treasure. Many relics are preserved in the church, some of great value. Guatemala Antigua is a city of magnificent and picturesque ruins, ancient arches and streets of grand old solid structures surrounded by gardens and shrubs and trees growing up from the roofs. Liberal space was allowed for each building when the city was laid out, and this, together with the size and grandeur of the structures, makes all so imposing in the decadence. Of churches convents and monasteries, the ruins of some sixty may be counted, each occupying several acres, and many of which had cells for 400 or 600 men or women. The restoration of the viceregal palace was at one time attempted, the armorial bearing granted to the city by Charles V being placed upon the front.

After securing independence from Spain, Guatemala, like other parts of Spanish America, fell under the epidemic of revolutions, as I have said. Military and political leaders desired each to be first, and

the church would be supreme over all. When Morazan became dictator he endeavored to abolish monasteries and convents and secularize church property. Then came from out the wilderness the guerrilla, Rafael Carera, called the chosen of God by the priests, until, after they had well established him in power, he began to plunder them; then he was minister of hell. Under this bandit rule lay Guatemala for thirty years, until to aid the liberal party came from near the spot which bred both Juarez and Diaz, the Central American border of the valley of Oaxaca. Jose Rufino Barrios, who from obscurity rose to be first general and then president, giving life and progress to his country until he died in the effort to unite the five republics under one general government. What Juarez did for Mexico, Barrios did for Guatemala. At one blow he delivered his country from the power of the church and the bandit of the mountains. He ruled with a rod of iron, but such rule was necessary. It must be absolute or nothing. But the absolutism of President Barrios was mainly in the direction of patriotism and progress.

He had at heart the welfare of his country, though he did not neglect himself when blessings came, as during his reign of a dozen years he made himself the possessor of as many millions of money. First of all he informed himself by intelligent application to the sources of knowledge, visiting Europe and the United States that he might gather practical experience to apply to his government; then he encouraged agriculture, established railroad and telegraph lines, founded schools and colleges, and brought his people at one bound from their state of darkness into the full light of modern progress.

Barrios saw clearly the advantage of federation, as many saw it before and after his time. Each president of the several states was willing to unite if he might thereby be made master of all. Barrios offered to retire from the field and let them choose a ruler from among themselves, but they doubted his good faith. Then he determined to force a union. It was a bold thing to do, with only one of the other states with him and Mexico against the measure. There was a brilliant assembly at the national theater on the night of Sunday, February, 28, 1885. The opera of Boccaccio was being performed by a French company. Toward the close of the play, and when at the most exciting point of interest, a military officer stepped to the front of the stage and read a proclamation by President Barrios declaring the states of Central America united, with himself as dictator, and calling on all present to sustain him. Honduras joined Guatemala at once; San Salvador hesitated; Nicaragua and Costa Rica refused flatly. Diaz denounced Barrios, threatened Honduras, offered assistance to the other states, and ordered an army into the field. Barrios and a son were killed at the outset, and the project went no further at that time.

What fools men are! Here was one whom fortune had favored, brought forth from the wilderness, given a great work to do and had been permitted to do it, given fame and fortune and power, all of his people being afraid of him, and foreigners quite willing to let him alone. He was thought well of and spoken well of, for though a fool he deserved it; he was the peer of Juarez, who was the peer of Washington. He had a beloved family and a beloved country; he was one of the first men in the world, infinitely superior to any one of the manikins of a dried up aristocracy, for he had made himself; and yet he was not satisfied, but must crown all by going out and getting his son and himself shot, and not for any principle but purely from personal ambition.

The present Guatemala is the most civilized city in Central America, having electricity lights, officers in French uniforms, policemen from New York, hacks and hippodrome, street cars and castle, mail wagon, a fair hotel, fine theater, opera with government subvention, and surroundings reminding one

of Bogota. Among the almost universal one-story dwellings, the higher churches and government buildings rise to over-powering prominence. The national institute has forty professors and the university twenty; museum, zoological and botanical gardens, library, are all good but not very large.

A coffee plantation is a beautiful sight; so are orange and lemon orchards, and an olive plantation. The hacienda buildings in Guatemala usually cover several acres, with avenues of trees and gardens well laid out, for the owner is a rich man. His grounds are well kept, his coffee plants in straight rows and of equal distance apart. The annual crop is from 1,000 to 1,500 quintals; near Champerico is a plantation of 380,000 trees which yields every year 15,000 bags of coffee. The best coffee is grown on mesas of 4,000 feet high or more, on suitable soil, and made ready for market by the aid of proper machinery. The berries when brought to the factory are first passed through a pulping machine, a steady stream of water running into the hopper where the berries are thrown. The pulp is torn from the berry and carried away by the water, as to be used finally a fertilizer. The berry is carried through a spout into a tank where it is washed and then taken from the water and dried in the sun. Another machine breaks the skin which encloses the berry and after, winnows it away, after which it is sorted by hand into four grades, and sacked for market. This work can be all done by hand in a slow imperfect way where there is no machinery.

The site of Comayagua, once capital of Honduras, was chosen in 1540 by Alonzo Caceres, sent thither with 1,000 men for that purpose by Hernan Cortes, his commander. A more central spot could not have been chosen. A broad plain, 2,300 feet above the sea, half encircled with mountain peaks and with fine soil and temperature averaging not more than 75 degrees, and varying less than twenty degrees throughout the year, where corn and wheat grow beside the pineapple and the palm, apple and orange orchards standing side by side, here indeed united the best of tropical and temperate climes. But this very redundancy of natural wealth, with its isolation in the heart of the continent, proves the greatest drawback to its development. It would seem that the greater the freedom the greater the laziness, with such a people so environed, for the 30,000 persons here in the time of the viceroys have fallen off to some 5,000. For all this it was a good enough place in which to hatch revolutions; so easy of incubation were they in Central America following independence. But in Honduras the people seemed not very fierce about it; they could not make up their minds to be energetic about anything; so when in 1885 President Marco A. Soto, for some reason best known to himself, sailed away to San Francisco and sent back his resignation, General Brogan took his place with none to say him nay.

A better town is Tegucigalpa, the commercial center as well as present capital of the government. front of the cathedral stands a large stone monument raised to royalty, but with exceptional economy or aversion to labor the original inscription was removed and the pillar left undisturbed as an exclamation point to independence. At the base of this pillar criminals are shot; sometimes traitors, as was the case with bluff old General Delgrado, who raised a revolution in 1886 which came to grief as a rebellion through the general apathy. President Brogan very fairly offered the general his life if he would swear allegiance to existing powers; but the old soldier would not. He asked of his enemy but one favor, that he might give the word of command to fire at his own execution. This was granted him, and the word which brought him death was given with apparent gusto. Tegucigalpa stands by a river on a rocky plain surrounded by treeless hills, the whole having an aspect somewhat barren and forbidding. It has paved streets, is twice as large as Comayagua, though that is not saying much. The wealth and fashion of the republic live here. The buildings are chiefly adobe, and there are no

carriages. They have free schools but there are few of them; education is compulsory, but no one enforces the law. Every Spanish American country has its Washington, as every Spanish American republic is patterned after the great Anglo-American republic. Francisco Morazan was the Honduras Washington; for he it was who shook his first in the face of the imbecile Ferdinand who then sat on the Spanish throne; that was about all there was of it. True, the clergy came forward and fought for their property; banditti from out the woods came forth to help first one and then another, and finally to rob all; one of a million turned out a patriot and hero, and he was the one who survived the others.

In the haciendas of Honduras, likewise a dolce, far niente life is led. Indians and half-breeds swarm about the place, little better than the vermin which they breed, living on tortillas and fruit which costs nothing but the trouble of picking, lashed into a little work now and then, and that is all. Nature here is lavish of her luxuries, for silk as well as cotton grows upon the trees,—vegetable silk they call it,—a fine soft fiber used in making scrapes, rebozas, and even dresses. Then there are medicinal plants without compare, all prolific of wealth and of spontaneous growth. Improvements may come if people will have patience; a century ago was begun a national highway which two more centuries will finish, and then Tegucigalpa will have wheel connection with Amapala, her Pacific seaport, which nestles among the verdant hills on the border of Fonseca bay, with its whitewashed walls, barracks, long wharf, and custom house. Under the coconut palms is a marble statue of Morazan.

A man here may be rich in cattle, corn, and plantains, and yet live with his family in a thatched hut, twenty feet square, made of poles stuck into the ground; floor of earth and a heap of stones for the fire place; no window, no chimney, three bedsteads and a hammock; no chairs or table, meals being eaten from a shelf,—a true picture. There are fine rivers offering every facility for crocodile hunting, with plenty of crocodiles. Gold, silver, and other metals are plentiful; also fine woods. But whatever requires labor the people shun, so that abandoned mines are marked by abandoned villages. These old mines are better than new ones, as only the rich ones attract attention, and little work is done on any of them before they are given up.

Balise, the capital of British Honduras, does some business in sarsaparilla, dyewoods, and mahogany. Next after cutting logwood and mahogany, the chief industry is agriculture—growing bananas, cocoanuts, plantains, coffee, rubber, corn, and sugar. There is a plentiful supply of sugar-mills and rum-mills.

Though the republic of Salvador is small, the people are active, intelligent, and more enterprising than are their neighbors. They were the first to throw off the yoke of Spain and the first to emancipate themselves from the temporal power of the church. For a time the provisional congress was driven by the royalists from one town to another, until in December 1822 an act was passed to unite Salvador to the republic of the United States; but the prompt action of the other Central American states in securing independence, and the confederacy which followed, prevented formal application to the Anglo-American republic for admission.

Salvador has 157 miles of sea-coast and no harbor. At La Libertad lighters take the place of wharves, although an iron pier runs out three-quarters of a mile toward the vessel, which fears to approach it. All along this harborless coast passengers and freight are hoisted from the ship to a high pier by means of steam crane and iron cage, so heavy is the swell of the sea. The tiled roofs of La Libertad glow red upon a background of green. Passing hence through plantations of sugarcane and coffee, corn, and beans, with occasional glimpses of the ocean, while the surf sounds its heavy boom and

myriads of screaming birds of brilliant plumage fill the air, ascent through the hills is made to San Salvador, capital city of the republic of Salvador. At first among the foliage the white corrugated galvanized iron dome of the cathedral is seen; then the Central park and market may be approached over a paved street. Sheet iron and wood enter largely into the construction of houses, making this differ from most other Spanish American cities. Fronting Morazan Park, where stands a bronze statue of the patriot made in Genoa, is the wooden theater, made in San Francisco and brought hither in pieces, the interior ornamented in white and gold. Wire screens cover the lower proscenium boxes for the benefit of families in mourning who may wish to attend unseen. The cathedral is expected to have a new iron facade from France, with a finish of oiled red cedar throughout the interior of the building. The two-story national palace spreads over an entire square. Twenty bare-footed soldiers sit on benches to guard the imposing entrance, lest revolution should enter unawares. The university and national institute buildings are likewise of two stories, with galvanized iron roofs and fronts of wood and stucco. On the plaza de Armas is the president's palace, a large wooden house, two stories high, supporting a three-story square tower. The city of San Salvador stands on a mesa 2,800 feet above and eighteen miles distant from the ocean. Two of the eleven volcanoes which encircle the plain, San Miguel and Yzalco, are constantly active, the latter having regular eruptions every seven minutes; the other nine break out occasionally. The city has suffered severely from earthquakes and eruptions, having been many times almost wholly or partially destroyed; hence the houses are low, even the buildings about the plaza presenting an insignificant appearance. The town of Santa Tecla, twelve miles distant, is likewise built with due respect to earthquakes.

The seas which are north and south of the Isthmus where Vasco Nunez made his discovery, at Nicaragua are due east and west, another peculiarity being that San Juan del Norte on the east side is more southerly than San Juan del Sur on the west side. At neither place does the town or harbor amount to much, even as termini of an interoceanic canal, which on the Pacific side is to be at Brito, twenty miles north of San Juan. Freight is landed at Corinto from lighters, and carried to the warehouses on the naked backs of very dark skinned natives. Leon, and Managua the capital, like so many of the other towns in Central America, are buried in foliage. Much of the country around is covered with forests, in places quite scrubby. One of the most imposing buildings in Managua is the School of Arts and Trades, of two stories. More intelligence and wealth are found in Granada, as well as better buildings. Masaya differs little from Granada and Managua, but Leon is larger and has more churches, the archiepiscopal palace standing on the plaza and the cathedral covering a block.

After all has been said that may be, Nicaragua is the land of indigenous revolutions; fighting springs spontaneously from the ground, and although their wars do not amount to much, none bring killed and few wounded, they are perennial.

They shot Walker, the filibuster when he went there, to interfere; that was right, and only in vindication of Central American Monroe doctrine. Some countries enjoy religion, some money-making, but Nicaragua enjoys civil war. Like Honduras, it is a land of magnificent possibilities; it was so before ever Cortes came; it will remain so until peopled by a better race. There is one good government road in the republic, made before ever a republic was thought of some 300 years ago, from Granada to the sea. Carts pass over it, the only vehicles in the country, and soldiers; the road is quite convenient in time of civil war. Carts, ox-carts, are an institution in this country, as railways are in Germany, steamboats in England, and electric cars in the United States. There are rich mining districts; and thence down to the Mosquito Coast is a fine forest of the most beautiful woods, which

thus far has scarcely been disturbed by the cormorants of civilization. Mahogany, here and in Honduras, vast forests of it, and rosewood, and the rest. The India-rubber tree is plentiful also, but the product is not as good as that of Brazil. Cocoa grows wild, and the indigo and many other valuable plants flourish.

There is a university, so-called, at Leon, and another at Granada, the first having forty and the other fifty students. There are sixty schools; education has been fought over as well as other things in Nicaragua; the quality of such education may be left to the imagination of the reader. Leon was a fine city once; there are now the remains of seventeen churches one of which, it is said cost $5,000,000. From the tower of this church may be seen thirteen of eighteen volcanoes that surround the lakes of Managua and Nicaragua. All have been sprinkled with holy water, and so rendered harmless except Momotombo, who refuses to receive baptism, being so discourteous, some 200 years ago, as to consume three monks who attempted to plant a cross on his crest and throw holy water into his mouth. Cosequina, near Granada, seems to have the strongest lungs, being able to throw ashes 1,500 miles, all over the West Indies, and even to Bogota, which event occurred in the eruption of 1835, thus sending her coals to Newcastle indeed. Before the filibuster Walker destroyed the town in 1857. Granada, at the eastern end of the valley of Nicaragua, was the abode of the aristocracy; during vice-regal rule this was the great commercial city, 1,000 or 2,000 mules arriving daily, during the busy season, with bullion and other natural products to be sent to Spain. Managua, on the shore of Lake Managua, is the place of politics, the wealthy inhabitants being for the most part planters, with estancias in the country. The houses of the president and leading men are elegantly furnished within, but the ever-threatening earthquakes prevent height or grandeur without.

Walker's first attempt at filibustering was in Guatemala, where he worked himself up to the position of dictator for a short time; but soon overthrown, he was glad to find himself safe at home again. Then he gathered a handful of men at New Orleans, and getting possession of a small vessel sailed away on the full tide of the manifest destiny he liked to talk about. It was not that this American filibuster lacked the ambition of the European filibuster who met his fate at Waterloo that he was not as great a man; he greatly desired to rule and be famous, and probably would have been had he possessed the ability of Napoleon and had met the opportunity as did the Corsican; yet Walker was not without his Waterloo,—at the battle of Rivas where he fought the Costa Ricans and the Nicaraguans, and being defeated took refuge on a British war ship whose captain gave him up to be shot. Probably Walker deserved his fate, but it was a beastly captain all the same.

For three and a half centuries men have talked about cutting a ditch from Lake Nicaragua through the twelve-miles-wide strip which separates it from the Pacific ocean, and clearing out the San Juan river so that ships might pass from ocean to ocean. Over a like period the drainage of the valley of Mexico has been discussed and attempted. Meanwhile a score of things, each as great as this, have been accomplished elsewhere, and little thought of it, President Diaz even carrying forward his great drainage scheme. But owing to the nature of our political system, a narrow-minded, penurious, and dog-in-the-manger policy has prevailed in congress, where thrice the amount required to carry out this profitable benefaction is every year squandered by the lawmakers of a nation which will neither act itself nor let another do the work.

This is the same government which spends $20,000,000 every year to carry for next to nothing in its mails trashy novels for the benefit of booksellers, and stands supinely by and sees the agriculturists,

miners, and manufacturers of the whole western part of the republic robbed and ruined by railway monopolists, which the lawmakers create and foster. It is estimated that the Nicaragua Canal would cost $100,000,000; were it to cost $200,000,000 it would be but a trifle as compared with the benefits which would accrue therefrom to the country.

Punta Arenas, on the gulf of Nicoya, stands upon a sandy point, as the name indicates, with a background of dense tropical foliage and grassland. The one-story dwellings with tiled roofs and enclosed in cactus fences, are almost smothered in trees and flowers, magnolia, coconut, palms, and papayas, the almond, orange, and lime, bananas, mangoes, and tamarinds. Living and the cares of life are here reduced to a minimum; people may live comfortably in bamboo huts, dressed in cotton, and eating the spontaneous fruits which scarcely require plucking; hence one sees everywhere contented happy faces, happiness and contentment, according to the old saw, depending less on what one has than on what one does not want. Conspicuous here are great coffee warehouses, well filled during the marketing season. The chief cities of Costa Rica are in the interior; Alajuela, 3,000 feet high; Heredia, San Jose, and Cartago, the last named 5,000 feet high. Coming hither from Punta Arenas, one crosses on a stone bridge the rio Grande, on whose tributaries are mines of coal, copper, and gold, and near Atenas the gold mines of Aguacate. Alajuela has a beautiful bronze fountain, and San Jose, a marble monument of President Fernandez, and a government university. All around is one vast coffee plantation, conspicuous among which are the lands of Senor Troyo, between Aguas Calientes and Cartago. At the hot springs of Agua Calientes is a large brick hotel with every accommodation for bathers. The larger plantations have mills and factories for shelling, cleaning, and drying the coffee, the machinery being usually run by water power. San Jose is a tropical garden city, embowered in flowers and foliage, the villas of the wealthy being separated by cactus hedges and fences of wild pineapple. Calle del Commercio is the business street, and in or near the grand plaza, here called Central park, are the inevitable cathedral, cuartel, government, president's and other palaces. In the center of the park is a garden of orchids, a fountain, and parakeets with clipped wings in black, gray, blue, and yellow. The cathedral has a doric facade, dome, and two towers. Within all is white and gold, with a floor of light colored tile, a band stand, and special worshipping-ground for the soldiers. The hall of congress is in the government palace; crystal chandeliers overhang the chairs and desks, and on the walls are portraits of notable men, as Morazan, Guardia, Carillo, and Soto. There are here, likewise, the buildings of the palace of Justice, and the International club, and, not to be forgotten, the National Liquor factory, where from the juice of the sugar-cane are made aguardiente, or rum; guarapo, a fermentation, the aguardiente being a distillation, and all under government monopoly. The works, enclosed in fortress-like walls, stand on a hill near the railway station and with engine, fermentation and storage houses, cover two acres. Besides the 1,500,000 bottles of the stuff here annually made, and which is but twenty-two percent alcohol and hence not so strong as common whiskey, imported beer and wine are extensively drunk, and yet the hard-working hard-drinking people carry it all off without any great display of intoxication. For it is only the working men who have money with which to buy drink; the poor fellows who will not work shall by no means taste the sweets of drunkenness.

Between 1804 and 1868 the yield of precious metals of the five republics of Central America was estimated at $21,200,000, of which $13,800,000 was in gold, and $7,400,000 in silver. Since the latter date the average yearly supply has been roughly computed at $300,000 in gold, and $200,000 in silver.

Guatemala is not a mining country, though in the latter part of the eighteenth century the district in the Alotepec Mountains yielded large quantities of silver, and between 1858 and 1865, 621,000 ounces were obtained from it. The river sands in the department of Chiquimula are auriferous, and are washed by the Indians. Gold placers in the department of Izabal were also being worked, and there are a few very promising silver mines. There are also deposits of lead, cinnabar, coal, kaolin and marble.

In 1860 and for some years previously, about $400,000 in bullion was exported annually from Honduras, most of it being gold gathered by the Indians from shallow washings. Silver ores are abundant, being found principally in the Pacific group of mountains, while the gold washings are the most numerous on the Atlantic side. The mineral districts in Tegucigalpa, Choluteca, and Gracias are very rich in silver, the chief supplies of gold being from the washings of Olancho; for though gold mines abound in Honduras, only a few have been worked. The Guayape, a tributary of the Patuca, and the Jahan rivers, and the streams running into them are the richest in auriferous sands .

In Salvador, the only deposits of precious metals are found in the portion of the state which is geographically connected with the mountain system of Honduras. There are rich mines of iron near Santa Ana and of coal the valley of the river Lempa and some of its tributaries, covering a region 100 miles long by 20 in breadth.

Nicaragua possesses an enormous wealth of minerals which, except on a small scale, have not as yet been developed. Gold, silver, zinc, iron, copper, lead, tin, and antimony are found in abundance, and there are also deposits of gypsum marble, alabaster, lime, and saltpeter. The entire northern frontier abounds in silver. Gold veins are found in the Cordillera, extending to the San Juan river, the principal one crossing the Machuca river. The metal is almost pure when washed from the river beds, but when dug out of the earth is more or less mixed with silver.

Manufactures are in their infancy in Central America. Since 1871 the governments of several republics have endeavored to promote their development; but the results, thus far, have not answered expectations. However, they are by no means unknown in the country. In Guatemala good factories have been established for spinning and weaving textiles at Quetzaltenango. In Chiquimula palm-leaf hats, mats, and baskets from the maguey fiber are made. In Vera Paz the Indians make hammocks, bags, rope, etc. But, the fact stands officially acknowledged that domestic products cannot compete even in the Guatemalan market with the better and cheaper ones brought from abroad. In Honduras manufactures are at a very low ebb. Salvador possesses factories for making cotton and silk rebozos, which find a ready market throughout Central America. Hammocks, as earthenware, straw hats, cigarettes, sweetmeats, etc., are manufactured. Rum is made in Guatemala, from sugar-cane. In Nicaragua there is a total lack of skilled mechanics. The manufacturing industry is as yet restricted to a few articles of home consumption which are made by Indians, such as pottery, mats, baskets, palm-leaf and maguey hats, cordage and hammocks. The hammocks of Masaya and Sultiaba are good. Some coarse cotton goods are made, in good repute for their strength and permanent colors. In late years some improved machinery has been imported for refining sugar, ginning cotton, distilling liquors, cleaning coffee, sawing lumber, and extracting fibers. In Costa Rica domestic manufactures mainly consist of furniture, arms, hammocks, nets, cotton goods, and pottery, all on a primitive scale and in small quantity. The government offered subsidies in 1885 for silk culture, and for the manufacture of paper, rebozos, cotton goods, and sacks. In the succeeding year the following establishments were in

operation: Two iron foundries, 58 forges, 7 armories, 72 saw-mills, 2 cotton mills, 252 coffee-mills, 9 sugar, 2 ice, 5 soap, one vermicelli, one oil, one Remington caps factory, 2 breweries, one distillery, 438 iron, and 612 wooden mills, two sculpture workshops, 117 ovens for making tile and brick, 31 lime kilns, besides a number of artisans' shops.

The central republics are well provided with roads and bridges, but they are not kept in the best condition. The national highways of Costa Rica, owing to the destructive action of the winter rains, are often in a dilapidated condition. It is due to the government, however, to say that it endeavors to improve them. In Nicaragua, the public roads are fit only for mule travel, except at short distances from the chief towns, which wagons can traverse. In the rainy season they are almost impassable. The same is to be said in regard to those of Honduras. Much has been done, however, in recent years toward improving the roads, and constructing bridges. Salvador has been for some years past macadamizing her highways. Guatemala is well provided with roads and bridges, and derives a revenue from tolls, which is expended in repairs, and in constructing new roads and bridges. The first line of railway built in Guatemala, that from San Jose to the capital, via Escuintla, 69 miles, went into operation in September 1884. Another line, from Champerico to Retalhuleu, 30 miles, was opened in December 1883. A new line, from the port of Santo Tomas to Gualhos was begun in September 1884. During the administration of President J. Rufino Barrios, measures were adopted to connect by railway the capital with the Caribbean sea, intending at the same time to build a line from Coban to the Polochic river. Barrios' untimely death put a stop to such projects for a time.

Telegraph lines intersect the republics, and are the property of the several governments. The construction of telegraphic lines began about 1870. A submarine cable, extended from the port of La Libertad to Panama, furnishes rapid telegraphic communication between Central America and the outer world. Under the treaty of amity, commerce and navigation existing between the United States and Guatemala, the vessels of either nation are admitted into the ports of the other on the same footing as national vessels. The coasting trade is reserved to the national Hag.

Honduran vessels are placed at the ports of the United States on the same footing as those of the latter, with respect to duties, imposts, and charges. Upon the arrival of a vessel at a port of Honduras she is visited by an officer of the customs, who demands her clearance from the port of departure, and information on the nature of her cargo. The master must produce within twenty-four hours a manifest in triplicate of the cargo to the chief officer of the custom house.

The treaty existing between Salvador and the United States stipulates that the vessels of either nation, no matter where they come from or how laden, shall be treated at the ports of the other, as regards tonnage, light dues, or any other charges whatsoever, as national vessels.

Any favors granted to any other foreign nation by cither of the contracting parties, will apply equally to the other. With respect to import duties, imports into Salvador on vessels of the United States, no matter whence the merchandise came, or what its origin is. must be subjected to the same duties, charges, and fees, as similar imports in vessels of Salvador; and if these imports consist of articles, the growth, produce, or manufacture of the United States, they cannot be made to pay higher or other duties than other similar imports, the growth, produce, or manufacture of any other foreign country. The same rules apply in ports of the United States to imports on Salvadoran vessels.

Nicaragua is entitled by treaty with the United States to have her vessels and their cargoes treated at the ports of the latter on the footing of the most favored nation. This stipulation is equally applied to American vessels in Nicaraguan ports.

Costa Rica and the United States have a treaty which places the vessels and cargoes of either country on the footing of the most favored nation at the ports of the other. But in Costa Rica, rum, firearms, and munitions of war cannot be imported without a permit from the Costa Rican government, previously obtained. Tobacco, gunpowder, and saltpeter can be introduced only on government account.

During the last quarter of the last century and the first quarter of the present one, Europe was forced to release from her clutches no inconsiderable part of the foreign domains taken from others. England lost the United States; Spain lost all her American possessions save Cuba and Porto Rico; Holland lost the Cape of Good Hope; France lost her best colonies, but the hungry and fast-breeding hordes of Great Britain and other avaricious and not too Christian nations of Europe, lighted like birds of prey on certain parts of Africa and Asia, and fastened with their talons perpetual slavery upon the defenseless inhabitants. War was everywhere; men so like to butcher men. A continental blockade paralyzed commerce, and compelled most nations to import their colonial products, and also their cotton by way of Russia and Turkey. On the restoration of peace in 1815 trade revived, notwithstanding the obstacles thrown in its way by a line of internal custom houses, and the commercial policy adopted by the several nations. The most important measure for developing German commerce was the zollverein, or customs union, initiated by Prussia in 1833. One of the most potent elements of prosperity in trade is rapidity of communications, and of transportation. This desideratum has been attained by the construction of railways and telegraphs, while other factors are the improved machinery and methods applied to the development of agriculture and manufactures. Commerce has likewise been benefited by the removal of many pernicious obstructions. Great Britain, for instance, put an end to the monopoly of the East India Company, abolished the duty on foreign cereals, and reduced her tariff rates, thus securing for her trade an enormous development. The United States followed her closely in some, points with similar results.

The Hispano-American republics, after encountering almost insurmountable difficulties in consolidating their institutions, at last inaugurated an era of peace, which promises to be lasting, and their commerce has been keeping pace with the rapid development of their agricultural and other industries. Brazil has also made vast strides in supplying the markets of the world with her staples, especially with coffee. Great Britain, chiefly, France in the second rank, and Germany in late years, have had almost the entire control of the Mexican, and Central and South American demand for manufactured goods. The United States have not made such progress in this direction as their position and other circumstances permitted.

On the 15th of April, 1887, the treaty concluded at Guatemala, between the five republics of Central America was officially published. The aim of the diet there assembled was "to establish an intimate relationship between them, and by making the continuance of peace certain, to provide for their future final fusion into one country." The treaty contains 32 articles: The first article declares that there shall be perpetual peace between the republics; all differences shall be arranged, and when not possible by mutual agreement, then referred to arbitration. In the case of armed disputes between two or more, the rest are to maintain the strictest neutrality. All the republics bind themselves to respect

the independence of the others, and to forbid the preparation in any one of expeditions to assail any of the others. Article six gives to the citizens of the different states similar privileges and rights throughout all of them.

Constitutions must be amended to this effect. Article seven stipulates that the citizens of any Spanish-American republic may become naturalized after one year's residence, and natives of other countries after three years' residence. Article eight exempts the citizens of one republic from military or naval service in another, and from forced loans or military contributions, and in no case are they to be obliged to pay ordinary or extraordinary taxes other than those paid by the natives of the state. Articles thirteen to seventeen are intended to establish a reciprocal freedom of navigation between the five countries; equality in port privileges; civil, commercial, and criminal suits are placed on the same footing in the several republics. Article twenty-seven provides that the contracting parties will endeavor peacefully so to frame matters gold mining, Honduras as to render possible the ultimate confederation of the five republics. Article thirty calls upon the governments of the different states to respect the democratic principles of the several constitutions, and always refuse to support second presidential terms.

The population of the five republics of Central America may be estimated at about 3,070,000; like that of Mexico, it is made up of many mixtures with these differences, that in Guatemala Honduras, Salvador, and, Nicaragua, the pure Indian element largely predominates, and in Costa Rica the white.

Under a decree of President Barrios of Guatemala, dated in December, 1879, an excellent system of public instruction was established, compulsory as well as gratuitous, and embracing the following branches: Reading, practical rudiments of the country's language, the knowledge of objects, writing, linear drawing, geography and history, ethics, and good manners. Facilities are also afforded for gratuitous instruction in Spanish grammar, book-keeping, elements of natural history, geography and history of Central America, together with other complementary branches. There are institutes held for teachers at three places each year, which teachers are expected to attend, in order to profit by the new information which will be laid before them connected with their especial calling. It is understood that the teachers are ambitious to acquire the utmost efficiency.

Miscellany

Summing up the resources and wealth of Central America we find in abundance gold, silver, tobacco, sarsaparilla, sugar, cocoa, indigo, and dye-woods. Costa Rica is conspicuous in her exports of coffee, hides, and cedar, of the first of which there are twenty-five or thirty million pounds annually. Nicaragua has mines of the precious metals, and has also copper, iron, and lead. The fruits of the tropics here abound, exports of sarsaparilla, aloes, ipecacuanha, ginger, copal, gumarabic, and caoutchouc being prominent. The minerals of Honduras are gold, silver, copper, iron, tin, platinum, antimony, zinc, and cinnabar; there are likewise coal, marble, opals, amethysts, limestone, chalk, and asbestos. The timber is very valuable; then to all the usual tropical productions may be added beans potatoes and wheat. Guatemala exports coffee, sugar, wheat, tobacco, India-rubber, cinchona, indigo, and mahogany. The soil of Salvador is extremely fertile, and sends forth balsam, indigo, sugar, cotton, cocoa, spices and turpentine, as well as some silver and iron although the mineral wealth is not great. In the early part of the present century cattle were the mainstay of the large estates in Central America, but the great staple was indigo. Sugar and raspadura were also important crops, but a yet more valuable one was corn. Some tobacco was also grown. The cocoa plantations had ceased to exist. The cultivation of jiquilite, cochineal and vanilla, had also declined. Seeing this, the Guatemalan government passed laws for the protection and development of agriculture, and soon a change became visible. Coffee and sugar came to the front, and are now the chief source of wealth in the country. Other staples likewise assumed importance. There is a sugar-cane indigenous to Honduras; the soil on both coasts is adapted to cotton; there is also much good coffee and tobacco land. So it is in all these republics; the possibilities in every direction are great, and development is progressing. Mount Merendon, in Honduras, was long celebrated for its gold and silver mines. Up to the middle of the present century, mining was the chief industry; then, owing largely to political disturbances, many mines were abandoned, the owners becoming proprietors of great grazing estates. Between 1850 and 1860 the natives collected annually from shallow washings gold to the value of $400,000. There is this peculiarity in regard to metalliferous deposits; while silver ores are most abundant on the Pacific side, placer gold, if not deep diggings are mostly on the Atlantic side. The mineral districts in Gracias, Tegucigalpa, and Choluteca are rich in silver, and in some places there are opals and amethysts. One mine yielded 58 percent of copper and 80 ounces of silver to the ton. The placer mines of Olancho are prominent in Honduras, Guayape, and Talan rivers and tributary streams are rich in auriferous sands. The southern districts bordering on Nicaragua have rich placers. The laws of New Spain are here in force; foreigners are allowed to work mines. At Izabal, in Guatemala, gold placers are extensively worked, and there are indications of large silver deposits. In Quetzaltenango is quicksilver. Nicaragua has great mineral wealth, as yet but slightly developed, although the laws favor mining by natives and foreigners. Nearly all the metals here abound.

There are deposits of copper, lead, and iron pronounced inexhaustible. There is some little quick-silver here. The more famous mines of this republic are the Ticaro, Santa Rosa, Achuapa, San Francisco, Potosi, and Corpus. There are others as good or better which have not yet come into notice. Salvador has large iron deposits near Santa Ana, and the silver mines of Tabanco, Encuentros, Sociedad, Lomo Larga, Divisaderos, Capetilla, and the minas de Tabanco group. Although Costa Rica is called the rich coast, it has less mineral wealth than any other of the five republics. There are gold mines near Panama, in the Aginatc Sierra, and at cuesta del Tosote. There are unquestionably mineral deposits on the Isthmus; there is gold in Darien, and elsewhere, from ocean to ocean, but it is guarded

by jungle, morass, and deadly malaria. The Santa Cruz de Cana began to be worked during the latter part of the 17th century. All these countries have mints for coinage. During the century Central America has probably given to the world $25,000,000 in gold and $15,000,000 in silver. From first to last the output of precious metals by the United States of Colombia has been about $750,000,000. While at work on their great interoceanic canal, the French had commercial possession of the Isthmus; they gave impetus to trade, increased population, and brought into use their decimal system as applied to weights measures and money.

In some of the early books on America are pictures of the natives pouring molten gold down the throats of the Spanish conquerors, and saying "Eat, Christian, eat; take thy fill of gold!" The question arises, Did these savages of Central America ever hear of Marcus Licinius Crassus, surnamed the Rich, one of the Roman triumvirate who sought to make himself master of Parthia, but failed, and being brought before Orodes, had molten gold poured down his throat, his captor saying, "Sate thy greed with this, thou hungry hound;" or of Manlius Nepos Aquilius, who was put to death by Mithridates by pouring melted gold down his throat—did the savages of Central America ever hear of this, or were they of as original bent of mind as the old Grecians and Romans, or did Peter Martyr, Las Casas, and Stephen Gage draw it all from their imagination?

Some one set in motion the idea that there were great riches in El Infierno de Masaya, as the crater of the burning mountain between lakes Nicaragua and Managua was called. So in the summer of 1538 two priests, Blasdel Castillo and Juan de Gandavo, formed a joint-stock company for the purpose of emptying this mountain of its molten money. A windlass was placed over the crater, and a beam thirty feet in length let down; after which descended one of the priests with an iron helmet on his head and a crucifix in his hand, accompanied by three others of the association. In an iron pot they placed earthen vessels into which they proposed to pour the liquid gold dipped from the molten mass. On being drawn up, after remaining in the abyss over night, they reported the presence there of great treasures, though they brought none away with them. Again in 1551 Juan Alverez, dean of the Chapter of Leon, obtained permission from Madrid to open the volcano and secure the gold that it contained. It was long held in Europe that volcanoes contained precious metals. As late as 1822 Monticelli and Covelli were obliged to make a chemical analysis of the ashes thrown out by Vesuvius in order to prove that they contained no gold.

Without the least idea of what they were understanding, a Scotch colony of several hundred persons in 1699 attempted settlements on the Isthmus at Caledonia bay. After building a road from the North to the South Sea, and beginning some other improvements, the few that survived the fever and the pirates made their way back to Scotland.

During the first century of the Spanish occupation of America, the isthmus of Panama, or Darien, was the pivotal point of commerce and transportation. And later yet, when the cry of gold was heard from the California sierra, thousands passed up the Chagres river on their way thither, or rode from Aspinwall by rail, to the same Panama,—yet not the same, for the old Panama was five miles away, having been abandoned 300 years before, when it was destroyed by the buccaneers.

At an early date there had been frequent discussions over the coal deposits at Panama and at Magdelena. The Chiriqui Land and Improvement Company, organized in 1859, was prevented from developing coal by local wars. At San Andres, in Sinu province, and elsewhere are extensive deposits.

In the capital of Costa Rica is a statue of a female figure with her foot on the head of a prostrate William Walker. Filibusters beware!

The Caribs, who inhabited the eastern islands of the Antilles and the opposite shore of the South American mainland, and who gave their name to the Caribbean Sea, were no worse man-eaters than a hundred other nations, including our own respected ancestors, who failed to acquire such historical distinction. Cannibalism is seldom if ever resorted to from preference for food, but is practiced rather as a religious rite, or from revenge, or in honor of the dead, or to absorb with the dead warrior's flesh some part of his courage.

For the islands of St. Thomas, St. Croix, and St. John, Secretary Seward in 1866 offered the king of Denmark $5,000,000, which was accepted; but congress declining to furnish the money the purchase was never consummated. Both Seward and congress were but right enough; doubtless the islands were worth the money, what do we want with them? Why should the United States go around buying islands? Alaska was not high at $7,000,000; but do we want the earth?

Cuba exports $60,000,000 a year in sugar, United States merchants and manufacturers have invested in Cuba $40,000,000, more in sugar than in tobacco, some of the money being loaned on plantations in the provinces of Cienfuegos, Las Tunas, Sagua, Santiago de Cuba, Manzanilla, Trinidad, and Matanzas. Fourteen plantations owned in the United States yield 100,000 tons annually, or one-tenth of the entire production of the island. Four United States companies are largely the owners of the rich iron mines in the province of Santiago de Cuba, at the eastern end of the island.

Jamaica has a government cinchona plantation. In Spanish-town visitors are shown the King's House and grounds, barracks, and Rodney monument and garden.

Santiago de Cuba, once the capital of the island, has a good harbor, and in the town a fine cathedral, custom-house, hospital, and cigar works.

Until 1863 Havana was a walled city, the intramural portion being at the harbor with narrow streets, while the extramural city was spaciously laid out with wide streets, plazas, and gardens well adorned with trees. The houses are chiefly of stone, with flat roofs, white marble and gaudy coloring being conspicuous. Monasteries and nunneries abound; there are seven hospitals, several asylums, university, seminary, and military and art schools and 100 cigar manufactories of the first class. La Honradez factory occupies a whole square and makes 2,500,000 cigarettes a day. In ordinary times Havana exports annually 200,000 million cigars, and 8,000,000 pounds of tobacco.

The two best fortified towns about the Isthmus were Panama on one side and Cartagena on the other.

The glory of Havana is the paseo, and the glory of the paseo are the volantes. It is for the paseo and the volante that men work and women dress. If there be another glory it is the volante's in the person of its driver, he who rides the horse that draws the cart, he and the gold lace on his coal.

Before the emancipation Cuba had 600,000 slaves.

They charge it to the abolition of slavery, the decadence of Jamaica, for however bad black men as slaves may be they are, worse when free, the planter says. Look at this island in the days of its glory! English dukes governed it, spending and pocketing thousands in behalf of royal magnificence here

and at home. Families got rich, and English brides were not averse to the country. Niggers worked, and white men were master. Now all is changed; so they say.

Soulougue, surnamed Faustin the First, black, for twelve years emperor of Hayti, during that time secured three or four hundred thousand pounds in the English funds; but becoming too ambitious, as his brother blacks thought he felt constrained with the queen and all the royal family, to retire to Jamaica, which he did, the princes and princesses of his black blood royal, thereafter forever declaring Victoria their king.

Chapter the Twenty-First: Mexico

Faust
So let the sun behind me pour its rays!
The cataract, through rocky cleft that roars,
I view, with growing rapture and amaze.

Astrologer
The sun himself is purest gold; for pay
And favor serves the herald, Mercury;
Dame Venus hath bewitched you from above,
Early and late, she looks on you with love;
Chaste Luna's humor varies hour by hour;
Mars, though he strike not, threats you with his power;
And Jupiter is still the fairest star;
Saturn is great small to the eye and far;
As metal him we slightly venerate,
Little in worth, though ponderous in weight.
Now when with Sol fair Luna doth unite,
Silver with gold, cheerful the world and bright!
Then easy 'tis to gain whate'er one seeks;
Parks, gardens, palaces, and rosy checks.

Mephistopheles
Yet can I not enough declare,
What wealth unowned lies waiting everywhere;
The countryman, who ploughs the land,
Gold-crocks upturneth with the mould;
Niter he seeks in lime-walls old,
And findeth, in his meager hand,
Scared, yet rejoiced, rouleaus of gold.
How many a vault upblown must be,
Into what clefts what shafts, must he
Who doth of hidden treasure know,
Descend, to reach the world below!
In cellars vast, impervious made,
Goblets of gold he sees displayed,
Dishes and plates, row after row;
There beakers, rich with rubies stand.

Plutus
Now is the time the treasure to set free!
The lock I strike, thus with the herald's rod;
'Tis opened now! In blazing caldrons, see,
It bubbles up, and shows like golden blood;
Next crowns, and chains, and rings a precious dower;
It swells and fusing threats the jewels to devour.

Whatever if any intercourse there had been between Asia and America in ages gone by, is certain that the occupants of the Mexican and Central American tablelands had made no inconsiderable strides toward wealth and civilization before the coming of the Spaniards. Nor was the culture of the Aztecs, that is to say of the people inhabiting the valley of Anahuac with the city of Mexico as their capital, by any means the highest or the oldest, and on the lowlands toward In the mountains which separate Guatemala from Tabasco and Chiapas, the east and west, a people lived, their superior in culture if we may judge by their architectural remains, of whom they knew nothing. The Toltecs it is said, 500 or 1,000 years before the downfall of Montezuma, came in from the north, paused for a time in the valley of Anahuac, then proceeded to the southeast, finally passing out of sight.

Montezuma II was emperor of the Aztecs. His rule was absolute from sea to sea, extending southward to the Mayan boundary and northward indefinitely. He was god as well as man, priest as well as king. There was none greater than he in heaven or earth, the emperor being ever the most potential of men, while the gods themselves were but dead emperors. His capital city was called Mexico Tenochtitlan, and stood in the marshes of the valley of Anahuac, where in 1325, hard pressed by the Culhuas, the Aztecs had taken refuge. Beholding there the divine symbol on a nopal an eagle holding in his beak a serpent, they knew that their wanderings were over. Gathering stones and driving in piles they prepared a foundation, first for a temple, then for houses of stone and adobe, with tile or thatched roofs; likewise palaces and gardens, and finally causeways from their island home to the firm land, with floating gardens on the surrounding waters.

So the city grew, each succeeding ruler adding to its comforts and beauties, until 60,000 houses with 300,000 people covered a circumference of twelve miles of this marshland. From the great temple court, east, west, north, and south ran a broad avenue, covered with cement, three of them connecting with the causeways. Ten horsemen might ride abreast on these causeways, which were made with piles filled in with dirt and stone, haying drawbridges and breastworks, and paved with stones laid in mortar. The fourth causeway led to Chapultepec, and supported the aqueduct which supplied the city with water. The four parts into which the city was thus divided was traversed by canals, bordered by quays, and provided with basins, locks, customs offices, and drawbridges, on which was conducted the traffic of city and country. A levee encircled the southern part of the city, which was a place of resort for the people, as well as a great business mart, merchants bustling about over cargoes of merchandise during the day, and promenaders enjoying the fresh evening breezes from the lake. There were many markets, the largest being twice the size of the square of Salamanca, and surrounded by porticos in which 60,000 persons found room to sell and buy. And larger than this was the marketplace at Tlatelulco, in the middle of which was a square stone terraced structure, thirty feet long and fifteen feet high, which served as a theater. Many fountains in various parts of the city were fed by the Chapultepec aqueduct, which consisted of two pipes of masonry, resting on a solid support five feet high and five feet broad, and each carrying a volume of water equal in bulk to a man's body. Two stone statues with lances and shields, representing Montezuma and his father, guarded the spring on mount Chapultepec whence the water for the aqueduct was obtained. Along the city border were lighthouses to guide the canoes which brought supplies to the metropolis; the city streets were lighted by burning braziers and from turret and tower flamed beacons equal in strength and brilliancy to any electric light of modern times. The temples and public edifices were cleansed at intervals, and 1,000 men kept the canals in order and swept and sprinkled the streets all the day.

In the valley of Anahuac were fifty other towns and cities, scattered about the borders of the lakes, while beyond this sacred center were a thousand other places and peoples who bowed the head to the Aztec monarch and paid him tribute. Next in fame and rank to Mexico Tenochtitlan was Tezcuco, which, if the pious Torquemada may be believed, contained 140,000 houses within an area of four leagues round. Fine straight streets lined with elegant buildings intersected the six divisions, while on the border of the lake, on a triple terrace, stood the old palace as it had stood for a century guarding the city, the new palace, a magnificent building containing 300 rooms, and which had employed 200,000 men in the construction, occupied the ground about the northern end of the lake. The little republic of Tlaxcala, where dwelt the only people who for hundreds of leagues around dared defy the great Montezuma, had thrown a wall of stone and mortar along their boundary from mountain to mountain, the other side of their small domain being defended by breastworks and ditches. In one of their several temples, 400 Spaniards with their attendants found ample room.

I might mention many other Nahua cities of repute, but must pass on with general description only. There was little variety in the style of architecture, one story adobe being the rule, or perhaps of the more pretentious two stories all or part of stone; exteriors all plain, adornment for the display of the wealth and taste of the owner being lavished on the interior alone. The dwellings of the nobility frequently stood on terraced heights in spacious grounds, two great halls and several reception rooms being in front with household and sleeping rooms in the rear. The courts of which there were several, were surrounded by porticos with porphyry, jasper, and alabaster decorations. The temple which the emperor Ahuitzotl erected to the god Huitzilopochtli over the stone whereon grew the sacred nochtli which had been pointed out by the oracle, and from whose summit Cortes looked down upon the scenes of his conquest, stood in the great central square of the city. In form it was an oblong parallelogramic pyramid 375 by 300 feet at the base, and 250 by 25 feet at the top, rising in five superimposed perpendicular terraces to the height of 86 feet. A square thick wall eight feet high and 4,800 feet in circumference, of stone and lime, plastered and polished, crowned with battlements in form of snails and turreted and adorned with stone serpents, enclosed the temple yard, flagged with large flat stones plastered and polished. The lower part was of masonry, the upper part of wood, with windows to which access was had by means of moving ladders. In the lower part were sanctuaries, dedicated, one to Huitzilopochtli and one to Tezcatlipoca. Shielded from vulgar gaze by rich curtains hung with tassels having golden pellets which rang like bells with every movement, the gigantic images of the gods stood on large stone altars in all their monstrous grandeur.

Walls and ceilings were painted and stuccoed, while the carved woodwork and gold and jewel decorations of the interior, if the bishop Las Casas speaks truly, exceeded Thebes' famed temple in beauty and grandeur. Ascent was made by stone steps, and at the eastern end of the summit were two three-story towers 56 feet in height, while a painted wooden cupola adorned the roof. In the upper rooms were stored the ashes of departed kings and nobles; here also were idols, and instruments used in the service of the temple, including the great snakeskin drum whose somber note was heard two miles away as it struck the death-knell of some victim of war or religion. Here also were chapels on whose stone hearths the perpetual fires were tended by virgins and priests. Within the temple's enclosures were some seventy small edifices, for various religious services, having 600 stone receptacles for the everlasting fires which flared before gods day and night. There Tlaloc had his temple, and the good Quetzalcoatl, and many others. Outside of these sacred precincts were many more temples and chapels devoted to the worship of the gods, Torquemada says 360, while Clavigero

is willing to testify to 2,000. And all over the land they were scattered as later were those of the Spaniards which took their place. Some were larger even than the great temple of Mexico Tenochtitlan, as those of Cholula and Tezcuco, the latter being three steps higher.

Among the great palaces of Anahuac were the royal palace in Mexico, the palace of Chapultepec, the palaces of Netzahualcoyotl, king of Tezcuco, and the Toltec palaces. Montezuma's palace was an extensive pile of low irregular buildings and enclosing three plazas, made of huge blocks of tetzontli cemented with mortar. Fountains played incessantly in the squares, on which opened twenty doors, each having above it sculptured in stone the arms of the Mexican kings, an eagle holding in his talons a jaguar. Besides the great hall where 3,000 men might comfortably meet, and on whose terrace-roof thirty horsemen might go through the spear exercise, were 100 other halls and apartments, with gardens, fountains, baths, ponds, and basins; a harem of 3,000 women, armory, granaries, storehouses, menageries, and aviaries, the walls and floors of the rooms many of them faced with polished slabs of marble, porphyry, jasper, obsidian, and white tecali, lofty columns of the same fine stones supporting marble balconies and porticos covered with fine carvings and holding a grotesque head. The beams and casings were of carved cedar and cypress put together without nails. The roofs were a series of terraces; mats of fine workmanship covered the marble floors, while the tapestry and curtains were of delicate texture, elegant design and brilliant colors. In 1,000 golden censers which hung in halls and corridors burned spices and perfumes.

In some respects the palace of the Tezcucan king surpassed that of Montezuma. The buildings of the royal residence, law courts, and public offices covered an area of 3,700 by 2,900 feet, and around all was thrown a strongly cemented adobe wall, from twenty to thirty feet high standing on a concrete foundation six feet wide. In the palace yard was a tennis court, and without the wall a large market; leading from the royal apartments were pleasure gardens with labyrinthian walks, and filled with birds of every hue and species throughout the land, ponds of fishes and cages of animals. The favorite country residence of King Netzahualcoyotl was at Tezcozinco, on a conical hill, ascent being by a winding road between high hedges, and also by 520 steps cut in the natural rock. But all this magnificence had been before surpassed by the Toltec monarchs who preceded the Aztecs in their occupation of Anahuac, as witness the sacred palace of that mysterious personage, the Toltec priest-king, Quetzalcoatl, which had four great halls, facing the four cardinal points,—the hall of gold, the hall of emeralds and turquoises, the hall of silver and sea-shells, and the hall of red jasper—so they were called because the several apartments comprising these main divisions were lined with plates of gold, or of silver, or their rich carvings adorned with the jewels and precious stones whose names they bore. Even yet another palace had the great god Quetzalcoatl, feather-work tapestry taking the place of gold and jewels in the respective divisions, one being yellow, one white, one red, and one, rarest of all, blue, the feathers being taken from the bird xiuhtototl.

And now woe to this people because of their deity! Well had he wrought out for them civilization and the blessings of peace, and well had they repaid him in faith and good works, in the adoration of the heart and the labor of the hands. Long, long ago Quetzalcoatl, the Christ of the Aztecs, had said to his people, “I go away, but I shall come again;" and he came not.

Many weary cycles they had waited, and still they believed on him, confident of his coming. And when they saw approaching their shore white sails upon the water, harbinger of their hopes, winged messengers from the east, in hushed breath they said "Behold, he comes! he comes!” Then opened

they their hearts and doors to him, and received alas! not their own good god, but the demons of Christian civilization. They were led by Hernan Cortes, an adventurer from Estremadura, Spain, who had tricked the governor of Cuba into giving him command of the expedition, and then tricked him out of the profits arising from it; tricking the monarch of Mexico by the vilest perfidy out of his kingdom, and all the while tricking himself in the belief that he was serving the God of heaven, in the name and through the intercession of our Lord Jesus Christ. This was before Pizarro had ever thought of Peru; indeed the Conquest of the Inca was but a vulgar imitation of the conquest of Mexico. The latter may have been as great an infamy, and indeed was so, but it was not planned and consummated in quite so beastly a manner. It had, moreover, the merit of originality; Cortes was in every way a better man than Pizarro the swineherd, and that is not saying much for him.

With twelve ships and 617 men, besides 200 Indians and sixteen horses, Cortes sailed from Cuba on the 18th of November, 1518, escaping the now suspicious governor. Velazquez, who had advanced a portion of the 20,000 ducats necessary to fitting out the expedition, and who too late began to distrust the commander whom he had appointed. Crossing to Yucatan, Cortes sailed northward along the coast of Mexico, as Juan de Grijalva had done shortly before, and came to Vera Cruz, where after he had looked about him somewhat, he sunk his ships, that none of his followers might turn back, and plunged into the interior.

Meanwhile Montezuma from his capital had seen through the eyes of his messengers the strange sight upon his seas, and doubted not that it betokened the return of the long-absent Quetzalcoatl, come to claim his own. Through this superstition the ingress of Cortes to the heart of the empire was made easy. For Montezuma was a mighty monarch, and could as easily have crushed this handful of interlopers as he could have killed a fly, had not the gods willed it otherwise. Behold him as he sits at table! He is alone, reclining on a leathern cushion covered with furs, in the large dining-hall of the palace. If the weather is cool, behind a screen of carved gold burns a charcoal of bark emitting a pleasant perfume. The dinner-service is of the fine ware of Cholula, with goblets of gold and silver and certain dishes of shells. Nothing can twice be used by the king; therefore the solid gold service is not brought out on all occasions. From every kind of food that land and water can supply the monarch may choose; fish fresh from the ocean, 200 miles distant, are brought every day by relays of runners, and there are cunning cooks among the Aztecs. Three hundred dishes are brought in at every meal by pages of noble birth, and placed in silence on the floor beside the sovereign, who thereupon indicates of which he will partake and the others are removed. Women likewise attend, and aged lords, wise counselors, and jugglers, and jesters, and all the folly and paraphernalia of royalty elsewhere. After dinner smoke and siesta. And so the story of grandeur continues until one tires of it.

Passing for our present purpose the government, aristocracy, laws, land tenure, priesthood, science, art, literature, industries, social relations, and the rest, let us pause and see how taxes and tribute are paid, for here we can best learn their ideas of wealth. Twenty-nine cities were appointed to provide the household of the king of Tezcuco with every requisite of food and furniture, and hence were exempt from other taxes. Manufacturers paid tax with what they made; merchants with what they dealt in; tillers of the soil paid taxes in labor or in kind. The towns contributed cotton garments, bundles of fine colored feathers, sacks of cocoa, tiger-skins, birds of certain kind, gold, cochineal, emeralds, liquid amber, loads of India-rubber, lime, reeds, honey, yellow ochre, turquoises, leaves of paper, gourds, mats, stools, firewood, building-stone, copal-gum, live eagles, in fact whatever "was of value which the person or state possessed. The people of Tlateluco," says Purchas, "were charged for

tribute alwayes to repair to the Church called Huiznahuca. Item, fortie great Baskets (of the bignesse of half a Bushel) of coccoas ground, with the Meale of Maiz (which they call Chianpinoli) and euery Basket had sixteene hundred Almonds of Chianpinoli. Item, eight hundred burdens of great Mantels. Item, eightie pieces of Armour, of slight Feathers, and as many Targets of the same Feathers, of the deuices and colours as they are pictured. All the which tribute, except the said armes and targets, they gaue euery 24 dayes." Among the Mayas, the civilized aborigines of Central America, the system and the articles paid in were much the same.

Montezuma had no desire to see Cortes, even though he were the true Quetzalcoatl, of which the Aztec king persuaded himself he was in doubt, hoping against hope, hating to receive, fearing to deny; and If indeed this were not the fair god himself but some interloping alien, peradventure he might be bought off with gifts; so he sent him word, and begged him to be gone, and laid presents at his feet, thirty bales of cotton fabrics, from gauzy curtains to heavy robes, white colored plain and figured, interwoven with feathers or embroidered with gold and silver thread; feathers and plumes of all colors, embroidered sandals and marasite mirrors. All these however, were trifles beside the gold, the beautiful glittering gold which was disclosed, and likewise the silver. First there was a disk of the yellow metal, representing the sun with its rays as large as a carriage wheel, ten spans in diameter, ornamented in demi-relief and valued at 3,800 pesos de oro.

A companion disk of silver, of the same size and equally ornamented, represented the moon. Then there were thirty golden ducks, golden dogs, lions, monkeys and other animals; ten collars, a necklace with over a hundred pendant rubies and emeralds, twelve arrows, a bow with cord stretched, two staves each five palms in length; fans, bracelets, and other pieces, all these of fine gold besides others of silver. To a previous messenger from Montezuma, Cortes had said when he handed him a soldiers helmet, "Take it and bring it back filled with gold-dust, that we may show our emperor what kind of metal you have;" and now behold it here! the crowning gift of all, the gilt helmet returned full of virgin gold, fine dust and coarse, with a plentiful mixture of nuggets of various sizes and shapes, all fresh from the placers; 3,000 pesos the value, not so very much, but as Torquemada remarked "it was the gift which cost Montezuma his head."

As Cortes approached the capital, a personage representing himself as the emperor came forward with a present of 3,000 pesos, and a promise of four loads of gold, and for each of his officers and men one load, if the strangers would depart. It was a pathetic struggle on the part of Montezuma between self-love and duty, absolutism and religion, but it was impossible for him to shift the responsibility upon another. Cortes soon learned that this was not the true emperor, and for obvious reasons he was determined on a meeting with Montezuma. On the morning of the 9th of November, 1519, the Spaniards mustered for the entry into Mexico. Not far from Iztapalapan they came upon the longest causeway, two leagues in extent. About half a league from the city the causeway formed a junction with the road from Xochimilco, where a stout battlemented wall, ten feet in height and surmounted by two towers, guarded the two gates for entry and exit. Entering here the Spaniards were met by a procession of over 1,000 representative personages from the city, richly arrayed in embroidered robes ornamented with precious stones and gold, who passed before the visitors, touching with their hand the ground and then the lips in token of reverence. This ceremony occupied an hour after which the procession moved forward. At the junction of the causeway with the main avenue of the city was a wooden bridge ten paces wide, easily removable, passing which Cortes halted to await the emperor, then approaching. The street was clear of all obstruction, save that on the emperor occupying it alone,

either side, close against the houses, was a procession of nobles, headed by lords and court dignitaries, all marching with bare feet and bowed heads. The emperor was borne in a luxurious and richly ornamented litter on the shoulders of his favorite courtiers, and followed by a few princes and leading officials. Three princes preceded him, one of whom bore aloft three wands, significant of the presence of the imperial head of the tripartite alliance.

On nearing the Spaniards the litter was lowered, and the monarch stepped forth, supported on either side by King Cacama and Cuitlahuatzin, his nephew and brother, and followed by the king of Tlacopan and others. Four prominent caciques held over the royal head a canopy covered with green feathers set with gold silver and gems, both fixed and pendent. Before them attendants swept the road and spread carpets. The king and his supporters were dressed much alike in blue tilmatlis which, embroidered with gold and jewels, hung in loose folds from the neck, where they were secured by a knot. On their heads were mitered crowns of gold with quetzal plumes, and on their feet sandals with golden soles and fastenings embossed with precious stones.

With a step full of dignity the king advanced toward Cortes, who had dismounted to meet him. As they saluted, Montezuma tendered a bouquet in token of welcome, while the Spaniard took from his own person and placed round the neck of the emperor a necklace of glass beads. After interchange of friendly assurances between the captains of Cortes and the nobles of Montezuma, all entered the city in stately procession.

At the plaza, where stood the great pyramidal temple surrounded by palatial edifices, they turned to the right, and Cortes was led up the steps of an extensive range of buildings, known as the Axayacatl palace, which faced the eastern side of the temple enclosure. Here Montezuma, who had withdrawn himself for a time, again appeared, and through a courtyard shaded by colored awnings and cooled by a playing fountain, he conducted Cortes by the hand into a large hall. An attendant came forward with a basket of flowers, wherein lay "two necklaces made of the shells of a species of red crawfish, much esteemed by the natives, from each of which hung eight crawfish of gold, wrought with great perfection, and nearly as large as the span of a hand." These the emperor placed round the neck of the adventurer, and at the same time presented wreaths to his officers. Then, seating him on a gilt and jeweled dais, he announced that everything there was at the disposal of the guest, and every want would be supplied. The monarch retired with graceful courtesy, and the Spaniards were left to refresh themselves and arrange their quarters. Everything about the place was neat and of dazzling whiteness, relieved by green branches and festoons. The finer rooms were furnished with cotton tapestry, and adorned with figures in stucco and colors, and with feather and other ornaments set with gold and silver fastenings. In the afternoon the king appeared with a large following. Seating himself beside Cortes he expressed his delight at meeting with such valiant men, related to him the myth of Quetzalcoatl, expressed the belief that his visitors were the people whose coming had been predicted, and whom he and all his people were ready to serve. Cortes made suitable reply, and at a sign from Montezuma attendants came forward with a rich collection of gold silver and feather ornaments, and some 5,000 pieces of cloth of fine texture and embroidered. Later, while on a visit to his palace, Montezuma said "As for your great king. I hold myself as his lieutenant, and will give him of what I possess.” Wherefore he again distributed presents, twenty packs of fine robes and some gold ware.

The conquest of Mexico, while full of romance, was so attended by base treachery and fierce fanaticism as to make the recital not altogether pleasing. But here we have to do only with what

illustrates the riches of the country and the power and magnificence of its monarch. Believing, yet half doubting, that the fair-featured strangers were akin to that supernatural being who was the rightful possessor of the land, if indeed their leader was not the very same, the poor deluded monarch fell an easy prey to the wily invaders, who from the beginning, as a matter of course, were determined on having the life of the king and possession of his country with all the wealth it contained. To this end they spoke the monarch fair at first, then on the vilest pretext seized and held him prisoner, until they forced from him what gold they could, then basely slew him. Once during the manipulation of his vile project Cortes caught such a glimpse of the wealth at hand as to urge him on with all the more unscrupulous determination. A room of the temple, while undergoing some changes to make it a fit place for Christian worship, was accidentally opened through the wall, and Aladdin on entering the cave was not more surprised than were these Spaniards on beholding the contents. The interior fairly blazed with treasures; bars of gold were there, nuggets large and small, figures, implements, and ornaments; stacks of silver; jeweled and embroidered fabrics; the prized chalchinite and other precious stones not omitted. Cortes allowed the favored beholders to revel in the ecstasy created by the sight, then, the time not having yet come, he gave orders to restore the wall.

When the capture of the king was consummated, and the whole empire was at his feet, fearful lest harm should happen to the sacred person of the monarch, Cortes spake, "Give us gold and we will go, leaving you at liberty. Send forth your vassals and gather it in from every quarter, that you may the more quickly sec the end." In answer to this appeal, Montezuma with alacrity emptied his palace and his treasure-house to the invaders, so that gold poured in upon them, and silver, in dust and quoits, and leaves, besides great piles of manufactured articles. "More!" the vultures demanded, "More!" Again and again the collectors were sent out, and treasure brought in and piled up before the conquerors. "When you transmit it to your king," said the captive monarch with touching pathos, "tell him that it comes from his good vassal, Montezuma." He requested that certain fine chalchinite stones, each valued at two loads of gold, and some finely chased and inlaid blow-pipes, should be given to the king of Spain. The treasure brought in by the collectors was stored in a hall and two smaller chambers of the aviary building, and consisted of gold silver and precious stones, with feathers robes and other articles. Smiths were called in to separate from the jewels the gold and silver settings, which were melted into bars, three fingers in breadth, and stamped with the royal arms. The melted gold amounted to something over 162,000 pesos de oro; silver, 500 marcos; unbroken jewels and other effects, 500,000 ducats. Fashioned chiefly in animal forms, "so perfect as to appear natural," were gold and silver set with precious stones and pearls and feathers. Designs were furnished to native artisans by the Spaniards of images, crucifixes, bracelets, and chains, which were executed with wonderful fidelity to the pattern. Silver was made into plates, spoons, and goblets. The feather work presented a brilliant variety of colors and forms; the cotton, some of delicate texture and color, both plain and embroidered, was made into robes, tapestry, and covers. Trinkets of turquoise and pearl were also among the treasures.

Compare this barbaric splendor with the resources and products of Mexico today. Thirty states and territories, with a population of 12,000,000, produce besides the many indigenous plants, all that are valuable brought from abroad. Large areas are under cultivation, and other large areas are devoted to stock-raising. Mines and manufactures have been developed until they are numbered by the thousand; towns and cities built, the larger ones having beautiful cathedrals; schools and colleges are in every part, and the whole country is intersected by railways. At the opening of the nineteenth

century, the mines of Guanajuato alone numbered 1,816, employing 116 mills, 1,898 arrastras, and had 366 establishments for the reduction of the metal. There were crushed daily 11,500 quintals of ore, and 9,000 operatives were employed. Population of the city 66,000. The agricultural interests of the province were likewise flourishing, 1,750 square leagues being covered with grain and rich pastures. But at the outbreak of the revolutionary war the flail of destruction struck here its first heavy blow in the capture of the Alhondiga de granaditas, or government granary, as famous in the history of Mexico as is the Bastille in that of France. The building, a massive two-story structure, 80 by 54 varas, was a fortress as well as a storehouse and thither on the approach of the insurgents under Hidalgo in 1810 was conveyed the royal and municipal treasure, amounting to $620,000 in silver bars and gold ounces, besides the money and valuables of private persons amounting to 3,000,000 pesos, all of which, together with the city fell into the hands of the revolutionary rabble midst horrible butchery and drunken riot. During half a century of revolution, many cities and haciendas were taken churches sacked, and so-called loans enforced, and treasure trains captured aggregating hundreds of millions of dollars.

Scarcely was the conquest completed when the work of ecclesiastical establishment began, and the clergy soon became rich and powerful in the New World. Indeed at one time two-thirds of the property of the country was in the hands of the church. Throughout South and North America, in the larger cities and centers of European population, cathedrals and churches were erected, while to the benighted natives of more distant parts missionaries were sent, and mission establishments set up, some of which became wealthy. In Central America and southern Mexico there were fewer missions than in the unexplored regions northward, from lower California to Texas, and along the seaboard of Upper California from San Diego to San Francisco. These mission establishments erected churches and other buildings controlled vast tracts of land, raised livestock, grew grain, and made cloth, leather, and wine, the labor being performed mostly by the natives.

As representatives of the king of Spain the viceroys of Mexico and Peru, from the time of Cortes and Pizarro to the revolution, lived in state; their households and dependencies in imitation of royalty, many of them acquiring wealth; some of them honestly. There were a hundred or more of these imitation kings in each of the two Americas during the period of vice-regal rule, some two centuries, frequent change being necessary—so thought the sovereigns of Spain—lest the servant should become greater than the master. A vast amount of treasure wrung from the people was forwarded by the viceroys to Spain, but however much was sent the Spanish monarch was ever crying for more. One viceroy, Marquina, in 1802, sent six millions to Havana and eighteen millions to Spain. Another viceroy, Garibay, sent eleven millions at one time. During the period from 1690 to 1807, $1,052,579,000 of coined gold and silver were shipped from Mexico, $767,000,000 of which found its way into the royal treasury of Spain. In Peru financial matters and treasure shipments were much the same. A great work was the construction of a canal to drain the valley of Mexico of its superfluous waters; it was participated in by several of the viceroys, but was brought forward more particularly by President Diaz.

Since 1564, when Manila was founded by Miguel Gomez de Legazpi, a profitable trade had sprung up with New Spain, and from that time forward merchants trembled for the safety of the richly laden galleons plying between the Philippine islands and Acapulco. Cavendish, in 1587, with three ships on a voyage of circumnavigation and plunder, ravaged the Pacific coast off the two Americas. Among other exploits he captured near Acapulco the Santa Ana, 700 tons, with 122,000 pesos in gold and a

rich cargo of silks and other Asiatic goods. With rare humanity he spared the lives of those on board, 190 in number, allowing them to go ashore while he set fire to the ship, haying still on board 500 tons of merchandise which the pirate could not carry away. Both on sea and land convoys were required for the most part to guard goods and treasure in transit, and even with the utmost precaution robberies to the extent of millions were perpetrated in Peru and Mexico.

They had a way in Mexico in years gone by of executing inexpensive justice on the highway, which as the English he say was not half bad. A noted robber is captured; but he who takes him would do well to go slowly before presenting him before the authorities lest he be asked, "You captured a robber? Yes; that is well; very well; did he attempt to escape, and did you kill him? If not, why not?" In conveying bullion from the mines and coin back, often there were 1,000 loaded mules in a train. In times of revolution and at other times forced loans were often made by the military or political power from merchants and ecclesiastics. This practice was common in the time of Iturbide, and before and since, when a forced loan of from two to five millions was frequently ordered. In 1823, when revenue was required immediately, all government cigars and tobacco were ordered sold. Sixteen millions of dollars were once borrowed of an English house, while negotiations were pending for a government loan. Often a treasure-fleet was wrecked or captured; one was wrecked on the Florida reef in 1553 when 700 lives were lost, and one in 1628 with over $12,000,000 on board was sunk by the Dutch admiral Pieter Heyne. On one occasion while the vice-admiral of the treasure-fleet was at dinner in his cabin, his ship was boarded by a boats crew of twenty-eight men under command of the pirate Pierre, surnamed le Grand. So sudden and daring was the attack that the vice-admiral and a number of officials who sat at table with him found themselves prisoners before they were able to gain the deck. The captives were put on shore at Cape Tiburon, and a few weeks later Pierre entered the port of Dieppe with his prize, which contained a rich freight of treasure and merchandise.

The sack of Vera Cruz in 1683 by the famous sea-rovers Lorencillo and Van Horn was a brilliant feat of piracy. Toward sunset on the 17th of May two large ships flying Spanish colors were seen to the leeward of Vera Cruz crowding all sail to make port and escape what seemed to be pursuit by a strong squadron a league or two further out at sea. At nightfall the Spaniards on shore made fires to guide into the harbor the ships, supposed to be two vessels laden with cocoa which were expected from Caracas. But alas! the ships were filled with pirates, 800 of whom landed at midnight; and the morning sun rose on the great commercial city only to behold it wholly in the power of robbers. The doors of the houses were battered in and the inmates dragged forth and lodged in the churches, where were soon confined 6,000 persons. There they were kept for three days and nights while their captors plundered the city. Besides the property of the inhabitants the altars and sacred images of the churches were stripped, and a large amount of specie, bullion and merchandise secured which had arrived at Vera Cruz in transit for Spain. Among the plunder were quantities of jewelry and three tons of cochineal. Then the wealthy citizens were put to torture to make them disclose hidden treasure and ransoms were in order, which yielded further large returns, the governor paying for himself 70,000 pesos. This game being finished, all the chief people, ransomed or unransomed were driven aside, and $150,000 demanded for the lot, which was finally paid. Passing the usual chapter of horrors, I will only add that the pirates then withdrew, having quite enjoyed their picnic at Vera Cruz. Their plunder amounted to $960,000. Later Lorencillo captured Campeche after a five days' siege, and thence marched on Merida, but was driven back with heavy loss.

At the opening of the eighteenth century the oceans were scoured by cruisers ever on the alert to pounce on Spain's treasure ships, and no vessel carrying treasure was dispatched without the escort of several men of war. At Vera Cruz at one time, a vast amount of gold and silver was stored, awaiting convoy, and on the arrival of a French squadron under Count de Chateau Renaud, was placed on board the fleet. Eluding an English squadron that lay in wait in Tortuguilla sound, the flotilla arrived in safety of Cadiz; but finding that harbor closely blockaded by the enemy, sailed for the port of Vigo. There the Spaniards were attacked by a powerful squadron; several vessels were captured; the remainder were sunk, and treasure amounting to $17,000,000 lies buried to this day at that point on the coast of Galicia.

Woodes Rogers, another English free-rover appeared on the western seaboard in 1709, in another of those voyages of circumnavigation and robbery. Picking up Alexander Selkirk, the primogenitor of Robinson Crusoe, at the island of Juan Fernandez, he sailed for Peru, taking several prizes, and capturing the town of Guayaquil, for and on to Lower California, which a moderate ransom was received; thence creeping along the coast to Panama, and turning west and southward from Cape St. Lucas, after cruising for a few weeks he met and captured a large and well-manned twenty-gun ship bound from Manila to Acapulco. An encounter with another Spanish ship shortly afterward, the Vigonia, 450 men and mounting sixty guns, proved less fortunate. After a seven hours' fight the English were driven off with heavy loss; and with numbers greatly reduced the expedition sailed homeward. The cost of this voyage did not exceed $75,000 and the returns were $850,000. Thus did the merchants of Bristol grow rich by licensed piracy, and learn to despise the slow gains of legitimate commerce. Again in 1712 the buccaneers mustered for a raid on Vera Cruz. Entering the city at night, the alarmed fortress of San Juan de Ulua began firing on them. Cutting off the heads of some of the friars, the pirates sent them to the commander of the fortress, saying they would cut off the heads of all the priests if he did not stop his guns. The firing continued with redoubled fury. What mattered it to the priests if their heads were on or off, the next world being better for them than this! Such logic was beyond the buccaneers; so they took ransom for captured citizens, and went their way. There was a buccaneer settlement in Yucatan, and the honest freebooters when not engaged in raids on Spanish settlers or in cruising for Spanish ships, occupied themselves with cutting dye-woods and mahogany. In 1708 the newly appointed governor, Saravia, was taken captive with his wife and children, in the bay of Campeche by the pirate Barbillas, who demanded and received $14,000 ransom.

Robberies and revolutions, pronunciamentos and plans followed independence. Forced loans were frequent and informal. Mining fell off and many of the most important industries declined, for the worst of governments is better than anarchy. But there were always at hand in an emergency patriots enough to save the country, even from those pretenders to patriotism, like Iturbide and Santa Anna, whose ambition and selfishness brought upon their country greater disaster than any acts of open foes. It was to such of her own people, and to certain political demagogues in the United States in no wise better, that Mexico is indebted to war with her northern neighbor, and large loss of territory, first Texas, and later California and the vast region thence to the Rocky mountains.

It is safe to say that as a rule the occasion brings out the men. When the time was ripe for independence, a crop of patriots was gathered, Hidalgo, Morelos, and others giving their lives to their country. The next of note to truly serve their country were Lerdo de Tejada, Juarez, and Diaz, under whose influence and rule intellectual emancipation and material progress were achieved to a degree never before surpassed in the annals of nations. When Benito Juarez, an American Indian of pure

blood, came out of the wilderness at the age of twelve years, into the city of Oaxaca, being then unable to speak the Spanish language, or to read or write any language, the country was bowed into the dust under the heavy loads of political anarchy and ecclesiastical domination. After living to see his country in a great measure free from both of these inflictions, largely through his influence, he died president of the republic; and yet, not until he had rendered his country other signal service in maintaining the integrity of the republic through a most trying ordeal, and teaching the scions of royalty in Europe a lesson which they will not soon forget. Thus three centuries after the coming of Cortes we find the Spaniards deposed, and to a certain extent driven out, and one of the race of the much abused Montezuma occupying the place of chief ruler over the land. Maximilian cost France as well as Mexico many millions, but great good and great wealth unfolded under the benignant rules of Juarez and Diaz which followed.

The Mexican plateau derives its characteristics from the configuration of the country, which rises on either side from the heated and malarious coast at a distance of 50 or 100 miles from the sea into cool healthful airs 3,000 to 8,000 feet above the ocean, the altitude being higher in the south dropping down somewhat and broadening toward the north. From the plateau rise ranges of mountains and volcanic peaks, the cordillera of Anahuac enclosing the valleys of Mexico and Puebla being among the former, and among the latter Popocatepetl, 17,798 feet above the sea. Ixtaccihuatl 16,076 feet, Orizaba 17,176 feet, and Colima 12,800 feet.

In northern Mexico, comprising the states of Sonora, Chihuahua, Coahuila, Nuevo Leon, and most of Tamaulipas, the soil is valuable chiefly for grazing purposes. There are millions of acres which at present are only fit for cattle, horses, sheep, or goats. The states above named, together with lower California, have an area of 355,000 square miles, about one-half of the estimated area of the whole nation; one-third of that area is mountainous and barren; portions of the rest would be extremely productive had they an adequate supply of water. There are large tracts where water-holes are so few that in a dry season all grass will disappear, and stock must perish. The portion of land now used for cultivation is small; the largest body being in the valley of the lower Rio Grande from near Camargo to Bagdad, about 1,000 square miles. Properly cultivated and irrigated it would yield abundant crops. Maize, wheat, tobacco, grapes, and coffee, as well as palms, evergreens, mango, olive, orange, lemon, yucca, and an unlimited variety of the cactus family, are found in abundance.

In the highest zone, or tierras frias, the maguey, common also to the temperate region has its home; its fruit is edible, and its fermented juice supplies the famous pulque and mescal. The henequen, an allied species, is likewise produced here. The silk industry in the Mexican republic has been gaining ground. The silk-worm is raised in Oaxaca, Puebla, and Hidalgo. The culture has also been introduced in Vera Cruz, Tlaxcala, Michoacán, Queretaro, Jalisco, and Chihuahua.

The value of farms and other agricultural property, including cacao has and palm gardens, been set down for 1887 at $600,000,000. There are probably 54,000 square miles of mountain land, and about 15,000 square miles of uncultivated soil.

Agricultural implements are still exceedingly crude, in many places but little better than the original article; a wooden plough, with the point occasionally armed with iron; a wooden harrow, or large rake, the points of which were sometimes of iron; and a kind of hoe, of various sizes, similar to the rake-harrow, but with a narrow iron knife edge in lieu of prongs. Reaping is often done with the sickle.

Among the Nahuas and Mayas, from the earliest times of their history, only three farming implements were known—at least the early Spanish records do not mention any more; the coatl, serpent-shaped, a copper implement with a wooden handle used as a hoe to break the surface of the soil; another copper tool, like a sickle, with a wooden handle, used for pruning fruit-trees. But the instrument in most common use was a sharp stick with the point hardened in the fire, or occasionally tipped with copper. Irrigation and fertilizers were well known and applied.

Vegetable life is regulated by latitude and altitude. From the base of Popocatepetl down to the tropical lowlands is a dense growth of exuberant verdure, while a beautiful picture of Mexican flora is found in the tierra fria, where as ascent is made the weeds and pines give place to the mosses which mingle with the perpetual snow. Below upon the mountain sides are found the white cedar and the ahuehuete, specimens of which may be seen at Chapultepec. Evergreen and dwarf oaks overspread vast areas, mingled with tercote and cacti. The pitahays Oaxaca grows fifty feet high. The home of the maguey is on the mountain sides and valleys of Hidalgo Puebla, and Tlaxcala, where the plant is largely cultivated for pulque, in the manufacture of which many thousand people are employed and much capital invested. Speaking generally, all the fruits and grains are easily raised, each in its own climatic zone, corn barley wheat beans and kindred plants in the temperate belt, oranges bananas pineapples and the like in the tropics. Going from Vera Cruz to Mexico, the hot dusty plain is passed and the ascent to the tableland is begun. Vegetation changes and becomes luxuriant, all kinds of tropical fruits and flowering vines are abundant, the orange, lemon, and lime, the olive pineapple and banana, and orchids and roses without end. Cordova is soon reached, and then Orizaba, the king volcano of these lowlands, keeping its feet warm and its head cool in a nightcap of snow. The ascent is steep and the scenery grand, the rise to over 8,000 feet being most of it made within a distance of 40 miles. After the rich verdure of the mesa-side, the tableland, with its fields of wheat and rye seem almost barren. The maguey plantations, however, relieve the landscape with their broad patches of brilliant green.

On the plains of Apam, which spread over 10,000 square miles of the driest part of the republic, and extend into the three states of Hidalgo, Tlaxcala, and Puebla, where the altitude is 6,000 to 8,000 feet, and it may be in places 11,000; where the atmospheric pressure is light and evaporation constant and rapid; where the temperature is mild and ozonification strong,—there thrives the pulque plant, reaching a height of from six to twelve feet throwing broadly out its heavy prickly leaves, giving to the most populous part of Mexico larger and surer wealth than any mines of metals or fields of grain. In several districts the agave grows wild; elsewhere it is extensively cultivated. Every part of the plant is utilized. The fiber is valuable for many purposes; the begass in most varieties is fed to stock; from the sap which rises to sustain the stalk is fermented pulque; from the juice of the stalk and roots of another variety are distilled mescal and tequila, and the roots are often used as soap. Another fiber plant, the lechuguilla, is found almost everywhere; tobacco and many fruits grow wild in many places; limitless are the weeds from which paper can be made; pita is plentiful in Oaxaca; all along the gulf side the conditions are good for cotton, in the southwest likewise, the product of the republic being 45,000,000 tons annually.

Jute, ramie, and hemp grow well. The best tobacco is raised in Vera Cruz and Tabasco, but the plant grows spontaneously in Yucatan, Tamaulipas, and in most of the seaboard states. In San Luis Potosi, Morelos, Sonora and elsewhere the mango and plantain grow side by side with the peach, apple, plum, and apricot. Cacao flourishes among many other places in Oaxaca and Soconusco, and fine

woods are plentiful in the tropical and temperate belts—mahogany, fir, ebony, oak, rosewood, brazilwood, and a score of other kinds. Textile plants are abundant almost everywhere; Morelos has many sugar plantations; in the south and west are scores of medicinal plants, and flowers flourish everywhere. Insects of commercial value are the cochineal and the bee; native here also were the bison and elk, the wolf, bear, and coyote, the tiger, armadillo, and puma; domestic animals and fowls are of course raised everywhere; nor is it necessary to mention fish, crocodiles, turtles, serpents, and the rest.

The cochineal insect, in size 70,000 to the pound, which for its coloring properties has been a staple article of agriculture commerce and manufacture since the conquest by Cortes, lives on the leaves of the nopal plant, clinging to it so thickly as from its whiteness at that time to give the plant the appearance of having been stricken with hoar-frost. At the proper time the plant is cut and hung up in a shed with all the bugs upon it, which however are soon scraped into a hot oven or boiling water, the method of death being determined by the color desired the former causing the insect to turn black, so that it can be used for blue and purple dyes, the latter brown for crimson or scarlet dye. Dried cochineal sell for certain dollars a pound; when put into their little casks for shipment they look like coarse gunpowder. The cochineal is indigenous to both Mexico and Peru. The natives utilized an insect which the Mayas called Ni-in, a harmless insignificant creature, which likes the plum-tree for a home. A shining shell of varying shades of yellow covers its little body, which is filled with a kind of grease, so durable when used as a varnish as to be affected neither by heat nor moisture.

Nearly all the surface of Mexico is capable of production with or without cultivation. While some sections have been made barren by the destruction of forests, yet larger areas have been reclaimed by irrigation. In the Puebla museum are over 100 specimens of woods susceptible of a high polish.

Hidalgo and San Luis Potosi produce odorous cedar and mahogany; Nuevo Leon, pine, oak, Sabine, poplar, mulberry, and walnut; Tabasco, ebony, rosewood, sandalwood, and twenty other fine varieties. Quinquina, or Peruvian bark, is conspicuous in Vera Cruz. The rubber-tree grows spontaneously in twelve states, giving forth 2,500,000 pounds annually. The vanilla flourishes in the extreme southern states; palms grow wild in many places. The vanilla orchid may be planted in a field or in a forest; if in the latter cuttings are set out at the foot of saplings, which afford shade and support to the climbing stem, old trees and underbrush being cleared away. The dark brown pods of the vanilla planifolia, six or eight inches long, are filled with a dark oily and fragrant pulp. The pods are picked in December, not all at one time but as they mature, and when not too ripe.

We hear of the wealth of woods, but in none of earth's forests is there such wealth as in the woods of Campeche and Tabasco. And little wonder it is that the king of Spain sometimes felt that he could afford to be generous with what he had come by so easily and so villainously. To one man, one lazy, ignorant, bigoted, and most egotistic Spaniard was given some 170 square leagues. on the Usumacinta river of fine logwood and mahogany forests, groves of various precious woods and medicinal plants, and vast stretches of savannahs interspersed with lakes rivers and lagoons,—all this we are to understand, from the acts of the king of Spain, that God had made for the special benefit of this one good-for-nothing gentleman of his majesty’s service, together with some 10,000 natives, which by a system of peonage under the laws of the country he could hold in a bondage as firm as ever West India planter held an African negro. It is thus that civilization proves the truth of its maxim, that the lands of savages must be put to better use than a game preserve.

Thus we see that with soils and climates suitable for the growth, each in its proper sphere, of all the plants useful to man; with an average rainfall of 59 inches and irrigation by no means difficult; with rivers, lakes, and canals intersecting forests and open plains, it is impossible to tell what man can here accomplish for man. A cursory glance shows that the 130,000,000 bushels of corn and 17,000,000 bushels of beans raised every year in the republic may be divided among about one half of the states, among which are Jalisco, Guanajuato, Puebla, and Hidalgo. In all the temperate zone wheat and other grains flourish; henequen to the value of $9,000,000 is raised, one of the largest plantations being part of an estate of 120 square miles near Merida, and yielding 4,500,000 pounds of fiber a year. In a school adapted to the purpose children are brought up to the business; irrigating canals intersect the entire plantation; a plant of modern machinery run by powerful steam engines separate the fiber from the leaf, in all of which work 350 men are employed.

While Mexico can scarcely compete with South America in cattle, it will always be a stock raising country, owing to its many districts which are fit for nothing else. Pastures in the main are good, grass being always green in places, and elsewhere uncut hay curing on the ground during the dry season. Here are all the domestic animals raised in temperate climes; ostriches and camels have been tried and failed, but the silk-worm and the bee are propagated. There are in all 1,250,000 horses, most of which are bred in the northern part of the republic. That common drudge, the ass, is everywhere attendant, and everywhere overworked and underfed. Of these unfortunates there are 600,000, and of mules, 900,000. There are of sheep and cattle, each 9,000,000, of swine 5,000,000, and of goats 4,000,000, one third of the whole being in Coahuila, Chihuahua, and Sonora. Of live stock $1,000,000 worth are annually exported, and of skins $2,000,000, and this on a capital of $700,000,000. Horse hair to the value of $60,000 or more is annually exported.

It is safe to affirm that the mineral wealth of Mexico is greater than that of any other country, without excepting Peru or Bolivia, and that there is good reason for the belief that there are richer undiscovered deposits remaining than any which have thus far been brought to light. The mountains in the extreme south-east contain extensive veins of silver, copper, and lead. Oaxaca possesses a wealth of precious metals in her central tableland. The Cerro del Mercado is one vast mass of iron.

The Nahuas or Aztecs were acquainted with gold, silver, copper, tin, and lead. The latter is merely mentioned, nothing being known as to where they procured it, or to what uses it was put. Our information on the manner they obtained any of the metals is very meager. It is known that gold was brought to the valley of Anahuac from the southern provinces; that silver and tin were obtained in the mines of Taxco and Tzompanco; that copper came from the mountains of Zacatollan, the province of the Cohuixcas, and from Michoacán. In certain regions were found on the surface of the ground gold nuggets and masses of native copper. Gold was mainly taken, however, by divers from the beds of rivers. It was kept either in the form of dust, in small tubes or quills, or cast into small bars after being melted in small pots with the aid of hollow bamboo blowpipes, made to answer for bellows. These metals were also obtained from the solid rock, to which end extensive galleries were opened. In their time silver was more scarce than gold. Quicksilver, sulfur, alum, ochre, and other minerals were collected to some extent, and applied to various purposes, one of them being the preparation of colors. It is a well established fact that, previous to the Spanish conquest, the Aztecs were ignorant of the uses of iron though the metal was abundant.

The Spaniards opened mines in Mexico as early as 1526, and worked them till 1700 to some extent. The discovery of the famous lodes of San Luis Potosi and Zacatecas, and later of Pachuca, Guanajuato, and others, wrought a complete change. The government, while desirous of developing this industry, hindered it by means of restrictive ordinances, with the object of securing the crown's share. Miners were obliged to barter their metal for money coined in the city of Mexico; restrictions were placed on the exploitation of the scanty deposits of cinnabar, while the crown assumed the exclusive right of selling quicksilver.

In silver, Mexico has until recently produced more than any other country in the north. She eclipsed her South American rival by giving to the world the grand process of amalgamating with quicksilver, which was discovered by a miner of Pachuca about the middle of the sixteenth century. The largest development in mining took place in the second half of the eighteenth century. The result of the creation of the Junta de Mineria was an increase of 25 percent in the production; at the commencement of the present century the average yield was of $23,000,000 a year, against less than $10,000,000 in the years preceding 1750, somewhat less than $5,000,000 a year prior to 1700, and $2,000,000 in the latter part of the sixteenth century; while the whole yield before 1548 had only reached $1,500,000, most of which consisted of presents and tributes. Something should also be added for metal used in manufactures; also smuggled out.

There are metals on lands of Sonora, Chihuahua, Coahuila, and Nuevo Leon, and thence all the way to Tehuantepec, Oaxaca and Chiapas. The two Cordilleras enclosing the great plateau are mostly of granite, the bed of the tablelands being of metaliferous, porphyry, basalt, and lava, the formations being mostly metamorphic, raised and sometimes penetrated by igneous rocks of all the geological periods, with diorites clay, silicious schists, and calcareous nonfossiliferous formations, all rich in gold and silver ores and argentiferous, galena, copper, and iron. Feldspars and micous schist predominate in Oaxaca, while in the high Cordilleras metaliferous trachytic rocks porphyry basalt obsidian pumice-stone and sulfur are plentiful. In Hidalgo are obsidian and opals; there is quite a traffic in opals in Queretaro; in Durango and lower California are found rubies; emeralds in Hidalgo and Queretaro; the red garnet in Chihuahua and Jalisco; and agates in the same region.

Popocatepetl yields from its crater pure sulfur which may be profitably gathered. Coal and coal oil obtain in Puebla, Hidalgo, Coahuila, and many other parts of the republic. Except magnetic iron, silver is the most abundant metal in the country and has been mined extensively from the time of the conquest. At Pachuca, in Hidalgo, are famous mines, and large returns have come from Guanajuato, Zacatecas, and other northern states; there are extensive reduction works at Pachuca Real del Monte and El Chico in Hidalgo, and also in Guanajuato. Gold frequently occurs in argentiferous ores, but seldom pays for the reduction. In nearly all the upland states are good gold mines, placers being conspicuous in Sonora, Lower California, and Guerrero.

Among the famous deposits special mention may be made of Real del Monte, one of the twenty leading mines of Pachuca, which gave net returns of $10,000,000 in thirteen years. El Chico has a main shaft 2,500 feet deep, and most of the mines here have steam pumping and hoisting machinery. Guanajuato has yielded largely for centuries, and will yield for centuries more; the Veta Madre is eight miles long. For sixty years the average annual yield of the Valenciana was $4,000,000; the San Juan ores average 140 ounces to the ton, which returned $130,000,000. The Guanajuato and Zacatecas mines have each given to the world nearly $1,000,000,000. The Catorce, Penon Blanco, Ramos, and

Guadalcazar are among the rich districts of San Luis Potosi; 100 mines in Chihuahua put out about $5,000,000 annually; Batopilas district, where have been found masses of silver weighing over 400 pounds, has yielded $300,000,000. Two silver mines in Sinaloa, the Rosario and the Guadalupe, have each put out nearly $100,000,000. In Durango the Candelaria mine has given forth from ores assaying from $70 to S140 a ton, $100,000,000. There are hundreds of districts and thousands of mines in Mexico of which the history and description would be interesting. Gold is likewise everywhere, but not in paying quantities, the richest districts being in the states of Sonora, Sinaloa, Michoacán, Aguascalientes, besides in all the silver regions, where also is a plentiful supply of quicksilver.

The methods of reduction of argentiferous ores in Mexico are patio amalgamation by the cold process, or by the de cazo or heating process, or by the Freyberg system; also by smelting and lixiviation, the last mentioned one, sometimes called the hyposulphate or leaching process, being usually preferred. Oaxaca has forty reduction works, handling annually 7,000 tons of silver ore, 1,000 tons of gold ore, and 1,200 tons of iron ore, with an aggregate value of $2,000,000. Chihuahua has fifty mills, half of them employing the smelting process, and half reducing by amalgamation and lixiviation. The several reduction works of Michoacán give preference to the patio system. The fourteen mills in the state of Mexico use amalgamation; twice that number of mills in Queretaro prefer Leaching; the several mills of Coahuila and Sonora incline to smelting, while in Monterey, San Luis Potosi, Jalisco, and Lower California all the various methods are employed.

In Durango is the iron mountain, cerro del Mercado, discovered by Gines Vasquez in 1562, 4,800 by 1,100 feet and 640 feet high, averaging 70 percent of metal, and in which there are 300,000,000 tons of metal above the surface of the ground. Two mills have been set up in the vicinity, but both inadequate for purposes of reduction. In Oaxaca, where coal and iron come together, mines are worked at Cahuacua, Peras, Elotepec, and Zaniza. There are vast beds of iron in Jalisco, Hidalgo, Tehuantepec, Guerrero, and Nuevo Leon, at some of which are foundries.

From the San Felipe coal fields in Coahuila, purchased by C. P. Huntington, some 300,000 or 400,000 tons are taken annually. There is an oblong basin filled with coal and rimmed with mountains, 100 miles from miles in extent. Carboniferous fields are plentiful in Michoacán, the Yaqui River, in Sonora, and 7,000 square Oaxaca, Puebla, and Vera Cruz. There are large quantities of asphaltum and petroleum in Tabasco and Vera Cruz, as well as in nearly a dozen states of the high plateau. The principal sulfur beds are in Michoacán. San Luis Potosi, Puebla, and Vera Cruz. Mexico has large quarries of limestone; Nuevo Leon, marble and alabaster; Puebla, onyx; Guanajuato, topaz and sapphire; Durango, rubies; Chihuahua, garnets; Hidalgo, emeralds.

The Nahuas and Mayas of Mexico and Central America had attained a high degree of perfection in certain branches of manufactures. They excelled in the ornamental working of the precious metals and stones, and also of shells and carved woods. Their pottery was excellent. They made cups and bowls from the hollow shells of gourds, and also fine baskets. They manufactured very fine cloth of cotton, rabbit-hair, of the two mixed, or of cotton mixed with feathers. The rabbit-hair fabrics were equal in finish and texture to silk. The palm and maguey fibers were prepared in the same manner as flax in other countries. From the same material were made cords, ropes, and mats. All the work of spinning and weaving was done by women. The spindle used in spinning was like a top which was set whirling in a shallow vessel, the fiber being applied to its pointed or upper extremity until the impetus

gave out. Paper was mostly made of maguey fiber, although some of the other fibers used in the manufacture of cloths were occasionally mixed with those of the maguey. The skins of animals were tanned both with and without the hair; the old authorities praise the results of the process employed without explaining what it was. In preparing dyes and paints, mineral, animal, and vegetable colors were used, the latter being extracted from woods, barks, leaves, flowers and fruits. The Aztecs probably knew more of the art of dyeing than the Europeans, and many of their dyes were, after the conquest, introduced throughout the world; among them were those of cochineal, indigo, and ochre.

The skill displayed by the natives in the branches of manufactures above referred to created no little astonishment, even among their conquerors; nor was less surprise caused among the conquered by the first examples of European skill in manufactures. The natives were not slow to discern the advantages they could derive in this line from their Spanish masters and seized every opportunity to learn. They not only succeeded in imitating the Spanish artisans but exhibited some ingenuity as inventors. I have spoken of the knowledge the Nahuas possessed in working the precious metals. They could, indeed, work them in certain forms which were absolutely unknown in Europe; this art was lost, owing to the selfishness of the Spaniards, who issued regulations forbidding, under severe penalties, that native jewelers should be employed in making ornaments either of gold or silver. After the conquest the production of cotton goods decreased in consequence of the competition with European commodities, though the latter never could supplant the fabrics of the natives. There were a few large factories in later years but looms were to be found, all over Cholula, Puebla, Tlaxcala, Queretaro, and Guadalajara. In 1792 the viceroy founded a weaving school at Tixtla. Whenever Spain was at war with a European power, and the importation of fabrics became interrupted, the native industry had its opportunity to flourish for awhile, but only to relapse into its former dormant state as soon as peace was restored. The day arrived at last when Spain's foreign wars and the struggle for national sovereignty threw the people of Mexico upon their own resources, and the selfish policy of the mother country became inoperative. Under the republican government the Mexican people have been encouraged, through protective tariffs, vigorous laws, and industrial schools, to develop manufactures. The first efforts made toward this end early in the thirties, did not meet with the desired results, but they were by no means fruitless, several companies having been organized which laid the foundation of manufacturing industries of Mexico.

Cotton manufactures, though subject to occasional checks, owing to political disturbances, and repeated changes of administrative policy, continued to assume a healthful tone and in 1843, were considered as permanently established. But the efforts to develop the industry had a set-back in 1848 through the discontinuance of the protective, or rather prohibitive system under which it had been gaining strength, and foreign fabrics were admitted into the country by paying duties.

After the fall of Santa Anna's dictatorship, the new rulers showed a disposition to restore protection to this industry, but their measures did not satisfy the manufacturers who clamored for a re-, turn to the prohibitive system, stating that manufactures had not been flourishing since 1856. The opponents of that system claimed that the industry had reached the point where profit was secured. The manufacturers denied that assertion, and we find the same denial still being made in 1879. The cotton manufacturing industry has been growing since, but the fabrics made are on the whole, calculated for the consumption of the poorer classes, the Indians in particular. American and English goods have, therefore. a good field, notwithstanding the high import duty they are subjected to.

The states of Michoacán and Querctaro were, during the viceregal period, noted for their woolen fabrics. The capital of Michoacán had at the beginning of the present century about 300 factories, producing 5600,000 a year. Woolen mills were established in Michoacán in 1844, and their number had greatly increased in 1845-6, the texture was improving, and the demand growing larger. Early in the next decade the production had increased so much that the price of wool was greatly enhanced, and that of foreign woolen goods declined in proportion.

Mexico has all the requisites for manufacturing, which is the true foundation of wealth everywhere,-raw material cheap fuel and labor, water power and transportation facilities. If anything is lacking it is stability of government or intelligence or enterprise on the part of capitalists. This industry is sure to grow. There are cotton factories in Puebla, Jalisco, Vera Cruz, Tlaxcala, Coahuila, and elsewhere, employing 25,000 operatives, and making annually 4,000,000 pieces of cotton goods worth §15,000,000. There are also factories for making cloths and carpets, silk paper and hats, and many mills for making flour, sugar, liquors, leather, cigars, pottery, furniture, brick, glass, and jewelry. The growing and manufacture of cotton are constantly increasing, the coasts of Spanish America being now supplied largely from Mexico. Woolen goods of superior quality are likewise made, and there are large shoe. hat. and other factories. Salamanca makes scrapes, rebozos, and mantas; Celaya, articles in leather, particularly saddles and harness.

After the discovery of America, the Canary Islands were for a long time of greater value to Spain, commercially, than the new continent, except as regarded the precious metals. But the time came when the Spaniards gave their exclusive attention to the old and silver mines of America. The necessaries of life rose in price, first in Spain, and afterwards throughout Europe.

America was less a trading than a mining possession of Spain. It is not the province of this book to give a history of that nation; but as a point connected with American interests during her domination, it will not be out of place to say here that her peculiar policy brought about her decadence. Scarcely had a century elapsed since the establishment of Spain's empire in America, when in spite of her fine coasts and harbors, her rich soil, and splendid climate, she sank into poverty, ignorance, and helplessness. Early in the seventeenth century, her population was reduced one half, her livestock to a third of her previous quantity. Finally she lost the greater part of her American colonies.

The policy of the Spanish crown, at this period, has no parallel in the history of mankind. To drain the American colonies of their wealth, and draw it to Spain was the whole aim of its legislation; and a prohibitive system of trade was practiced which clearly showed its indifference to colonial prosperity. Articles of necessity or luxury called for by the Americans had to be brought exclusively from Spain, and trading with foreigners was made a heinous offense. One only port of Spain—Seville first, and Cadiz afterward—was permitted to trade with America. The immense influx into the peninsula of precious metals, by making labor almost unnecessary, caused a general decline in all kinds of industries; and Spain, which had formerly been a great industrial nation, had to resort to foreign markets, not only to supply home consumption, but also the needs of the colonies. This naturally increased the drainage of wealth from America. The foreign merchandise reached the colonies at greater cost because of additional duties and traders profits. Such a system developed smuggling as a regular industry, with the usual accompaniment of corruption of officials. The contraband trade flourished, especially when the mother country was at war with one or more foreign powers, and her commerce was reduced to the lowest ebb. Indeed, smuggling became so firmly grafted that it could

not be suppressed. It is true that there were occasional intervals of animation perceptible in Spanish commerce during the seventeenth and eighteenth centuries, but they were merely spasmodic.

The regulations governing intercolonial traffic were no better devised. The same spirit was at the bottom, producing similar evils to those regarding trade with foreign nations. A direct trade was allowed, however, between New Spain and the Philippines, through Acapulco, subject to many restrictions. Under a new franchise with increased privileges granted in 1734, the Philippine trade flourished till near the end of the century, the imports into New Spain consisting chiefly of raw silk, colored cotton fabrics, and Chinese earthenware. By 1794 the trade, however, had so much decreased that no fairs were held in Acapulco for lack of attendance. In 1792 and 1793, and in the following year no fleet came. The trade afterward revived somewhat; according to Humboldt the amount of bullion annually shipped averaged $1,000,000, and sometimes reached $1,300,000.

Besides the Philippines trade at Acapulco, there was some trading carried on between New Spain and Peru at the same port, but under such restrictions as to reduce it to a very limited scale. Two vessels of 200 tons burden each were permitted annually to visit Acapulco, and the goods they took paid an export duty of two and a half percent. Later only one vessel was permitted under still greater restrictions, and in 1654 even this petty concession was withdrawn. The clamps were thus tightened for the benefit of the Seville monopolist. During the eighteenth century the trade was somewhat revived, but it was only in 1794 that Spain understood how wrong had been the policy till then pursued, and free trade between the colonies was decreed. The wise and true-hearted Carlos III had begun since 1765 somewhat to relax the prohibitions, opening a number of ports of Spain to trade with certain colonies, and in 1778 the privilege was extended to all the Indies. These liberal measures gave much impulse to commerce. Finally, the system of fleets under convoy was abolished, and in 1799, owing to war between England and Spain, neutral vessels were permitted to trade directly between the peninsula and the colonies. That permission was followed by a still more liberal law, which remained in force from 1805 to the middle of 1809. After this, occasional permits were given to parties residing in the colonies to bring cargoes from foreign ports. About the same time, and later on, other measures were adopted to remove all impediments to trade. The latest one, of 1820, opening several ports on the two seas to commerce, was not carried out. Illicit trade continued, however, at Vera Cruz and Acapulco.

The routes of intercommunication and travel to Spanish America are as follows: To the ports of Mexico on the gulf of Mexico, the islands of St. Domingo, Cuba, and Porto Rico, and the ports of Central and South America on the Atlantic coast, by sailing vessels or steamers from the United States or Europe; the ports of Mexico and Central America on the Pacific are usually reached by steam or sailing vessels from Panama, or from the ports of the United States situated on the same ocean. Sailing vessels from Atlantic ports, visiting those in the Pacific, go and come round Cape Horn. The ports of South America, on the west or Pacific coast, are reached by steamships sailing from Panama, or by steamers crossing the straits of Magellan. The facility of communication across the isthmus of Panama by railway has existed since 1855, from which time several steamship lines under various flags, have conveyed mails, merchandise, and passengers on the Atlantic sea to and from Colon, and on the Pacific, to and from Panama. Most of the steamers on the Atlantic side touch at the ports of the West Indies in going and coming. Communication by steamship between the island of Cuba and Europe, and between Cuba and the United States is quite frequent. The other Antilles are also regularly visited by mail steamers.

Accounts are kept in Mexico in dollars and cents. The republic has mints at Alamos, Culiacan, Chihuahua, Durango, Guadalajara, Guanajuato, Hermosillo, Mexico, Oaxaca, San Luis Potosi, and Zacatecas; and coins at present gold pieces of $20, $10, $5, $2.50, and $1; silver pieces of $1, 50 cents, 25 cents, 10 cents, and 5 cents; and 1 cent pieces of copper. Gold coins are rarely seen, but they are mentioned to denominate value. The metric system of coinage was adopted several years ago; a few 5 and 10 cent pieces are found sometimes, but in general transactions of buying and selling in shops, and everywhere among the people the old system is still in vogue. The quarter and half dollars in common use are respectively called dos reales, and cuatro reales, and occasionally peseta and toston. In small dealings the real is the unit of value; thus it is that a commodity is worth un real, dos reales, cuatro reales, etc. In bartering with small dealers the word centavo may at times be heard, but such transactions are usually made for tlacos, which is the smallest coin of the old system, and worth 1 1/2 cents. The nickel pieces of 1, 2, 3, and 5 centavos, coined in 1883, having caused popular riots, were withdrawn from circulation.

Though the blood intermixtures are many and varied, there are three well-defined classes, the aboriginal, the European, and the meztizo, or cross between the two. Of the first there are left in round numbers some 4,000,000, of the second there are about 3,000,000, and of the third 5,000,000. The Indians and meztizoes are physically strong, and prefer agriculture and stock-raising to any other kind of work. Commerce and manufactures are largely in the hands of foreigners. The country is capable of supporting a population of 100,000,000 without the slightest difficulty. In society class distinctions are definitely drawn, and may be called the upper, middle, and lower; the first comprising the wealthy and educated, or those who affect wealth and intelligence, and will not work; the third, the poor, who are very poor, and ignorant, and hard-worked, who are often hungry and cold, and who have no hope for anything better; the second, or middle class, who are comfortable and happy, not above work, and strive earnestly to educate and improve their children. Of such as these last are republics made; but it will be long before any great intelligent and progressive middle class will be found in Spanish America, or before the governments there will be republics save in name.

The present constitution of Mexico, or under its full name Estados Unidos de Mexico, was adopted on the 5th of February, 1857, and afterward received several amendments until October, 1887, when the clause was repealed which forbade the reelection of the president for the next immediate term. By the provisions of that fundamental law Mexico is a federative republic, composed of twenty-seven states, besides the federal district and two territories. Each of the states is self-governing as regards its own local affairs while together they form one body politic. The federal district and the territories are under the immediate control of the general government.

The functions of government are divided, as elsewhere, into three departments, namely, the legislative, executive, and judicial. The legislative power is vested in a congress composed of two chambers, the senate with 56 members, and the house of deputies, with 227 members. The executive authority rests with a president elected for a term of four years, and who may be reelected. The judicial power is centered in a supreme court of eleven proprietary members, named ministros, four supernumeraries, one fiscal, and one solicitor-general. There are, besides, eight circuit courts and thirty-seven district courts.

Though a complete census of the Mexican population has never been taken, I adopt an estimate for 1882, which makes the number of males 5,072,054, and of females 5, 375.930; total 10.447.984. These figures do not differ much from Correa, Geografia de Mexico, who gives 10,500,000, nor from Garcia Cubas, who in his Cuadro, Geognifico, etc., has it 10,451,974. The government of the republic has adopted liberal measures to invite foreign immigration, which proved measurably successful, a number of foreigners, especially Italians and Spaniards, having come to settle. But it has been asserted that owing to difficulties in the way of successful colonizations, many of the immigrants have in recent years abandoned the country.

The hopes of America, both Anglo-Saxon and Spanish, rest on the education of the masses as well as on their material progress. The development of intelligence, and of true independence, will necessarily be slow; but governments do not lose sight of the fact that an ignorant people is at all times a dangerous element. In the United States there are more than six millions of persons, of the age of ten and upward, who can neither read nor write. Many of that number are, it is true, of foreign birth; but in some sections especially in the southern states, this ignorant class amounts to about 40 percent of the inhabitants.

In the republic of Mexico the proportion of illiteracy is unfortunately much larger. The case in other Spanish-American countries is by no means better. However, it must be conceded that all men of prominence, both in and out of government circles, are alive to the importance of the subject, and use their best endeavors to promote the increase of schools both for primary and superior instruction. The female sex also take a deep interest in the subject. The study of the English language is generally promoted in the Spanish-American countries. On the other hand, the people of the northern republic already understand the advantages of possessing the Spanish language. For the rapid development of the two Americas it is of vital importance that every intelligent and progressive person should be conversant with these two languages.

Mexico has from the earliest times produced men entitled to distinction for their scientific and literary attainments, made apparent in their writings. The early chronicles have preserved a few of the lofty, really poetic sentiments of Netzahualcoyotl, king of Texcoco, which go to prove that the poet-monarch was the product of a high order of civilization. The Mexican race certainly possesses literary qualities, which manifest themselves on every favorable opportunity. This became evident in the works of native Mexicans soon after the conquest, such as those of the two Ixtlilxochitls, the Tovars, Tezozomoc, Niza, Camargo, Zapata, Mendoza, Pomar, Aguero, and the brothers Ortega, to whom is due most of the knowledge we now have of Mexican primitive history. They all lacked embellishment, however, resulting from poverty of language. This defect disappeared as soon the Mexican Indian mastered the Spanish language, when he used it with as much fluency and ease as his European fellow-subject. After the first short period following the conquest, when Spanish jealousy discouraged literature of any kind, there was an absolute prostration, the only efforts made to record passing events being those of the religious chroniclers, whose productions were valuable, but verbose, involved, and far from entertaining, with only an exception here and there. Bishop Zumarraga's fanatical vandalism in destroying the Aztec writings was in a measure redeemed by the labors of Father Sahagun. This man's work was mutilated by narrow-mindedness, but Father Juan de Torquemada, in his Monarquia, saved much of it.

Among the religious orders the Franciscans may first be mentioned. Upon the grounds formerly occupied as Montezuma's zoological garden, with funds furnished by Cortes, was built at an early day a monastery for the Franciscan friars, the stones from the steps of the great Aztec temple being used in the construction. Thence to the north and west, and thence to the northeast were sent forth missionaries to instruct the heathen k and in the wily ways of Christian civilization, to seize their lands and by their aid to cultivate them, raise stock, build churches. Wealth flowed in on this and other orders, whose vow of poverty was set aside as unbefitting the occasion. As the Franciscans increased in numbers wealth and power, their buildings were enlarged and new ones added, until, three centuries after their beginning in the Aztec capital of Tenochtitlan, their city property covered a wide area and enclosed within a substantial wall magnificent monastic and ecclesiastical structures, garden, cemetery, cloisters, sacristy, sala de profundis, chapels, and a refectory where 500 might sit at table at one time.

Even after the great accounting, wherein they had been forced to give up the larger part of their gains, they had left to them the church which they had built in 1716, 230 feet in length, with dome and lantern 114 feet high, the interior adorned with lavish splendor. The chapel of Purisima Concepcion, built in 1629, still exists, these two with five others constituting in the days of their glory the seven churches of San Francisco famous throughout Christendom.

The church of Santo Domingo, belonging to the order of Dominicans, is an imposing structure, with rich interior adornments, and a chapel on the west side of Santo Domingo plaza as a dependency. Porta Coeli is a small church formerly part of the Dominican college which no longer exists. The Jesuit church of Loreto cost over half a million dollars. The Inquisition at first occupied a small Dominican church, but later reared a formidable structure, which upon the abolition of the holy office became the property of the school of medicine. For every religious house now standing in the city of Mexico, ten have been built and torn down.

Education, at first in the hands of the clergy but later secularized, has been making rapid strides during the latter part of the century. Since the viceroy Mendoza inaugurated the first college, many institutions of learning, universities, colleges, conservatories, and professional and common schools have been established, thousands of which are now in operation. Schools under the viceroys were mainly for the aristocracy; after independence public education was looked after by the national and state governments, and by no one more earnestly and efficiently than President Diaz. At Puebla, Guanajuato, and Guadalajara are schools of mechanic arts and trades; at Oaxaca is a reformatory school, and in Zacatecas and some other states are asylum schools; there are commercial, normal, law, and medical schools at nearly all the capitals, and in various places schools for the blind, the deaf and dumb for in engineering and agriculture, for mining and many branches of manufacture. At Chapultepec is a national military school, with observatory and laboratories; Campeche and Mazatlan have naval schools. In Mexico are a medical institute, school of jurisprudence, art academy and conservatory of music; also many libraries, museums, and treasures of art and antiquities, and various institutes of technical learning.

Among the treasures of the National Museum are many Aztec remains, the sacrificial stone, of many tons weight and covered with carvings the hollow in the center to which a canal conveys the blood of the victim. Behind this stands the old war god, as if regarding with contempt this method of making away with good soldiers. And, indeed, if bloodletting be as good for a nation as it was once thought to

be for the individual, perhaps wars and sacrifices both might be praiseworthy institutions in certain quarters. It is safe to say that the Spaniards sacrificed to their religion during the seventeenth century the lives of more Indians than ever the Aztecs did to theirs in any century previous. Here are likewise specimens of the mineral and agricultural wealth of the country. Alvarado's armor, Aztec idols, long rows of rulers, viceroys, and presidents. Maximilian's gilded coach and some of his silver plate, and many fine paintings and engravings.

The massive structure now used for the national library was formerly the church of San Augustin. The grounds on the north and west sides are enclosed by a high iron fence, on the posts of which are busts of Ramirez, Alaman, Veytia, Clavijero, IxtlilxochitI, Tezozomoc, Navarrete, and other historical and scientific celebrities. There are about 160,000 volumes in the collection which runs largely to religious books. The Cinco de Mayo, a free library in the old Betlemitas church, has 10,000 volumes; there is a law library of 14,000 volumes and other collections of various degrees of importance. The national school of fine arts occupies what was formerly the Amor de Dios hospital. The conservatory of music is in the building once occupied by the University of Mexico. Many of the scientific and other institutions as the schools of mines, agriculture, medicine, commerce, and law are housed in what were once convents monasteries, or churches.

Railways and telegraphs have done a great work for Mexico, and the postal system has of late become very efficient. Several lines of roads, completed or in course of construction, traverse the continent from ocean to ocean, and cut the country into longitudinal sections, while communication is had by steamships with Inland various parts of the world. Inland waters are not so available for transportation purposes as are those in South America and the United States. Chief among them are the rio Bravo the rio de las Conchas, the Soto de la Marina, Grijalva, Usumacinta, Tabasco, Verde, Panuco, Tamesi, and others on the east and west coasts. Canals have been cut or projected in several places, as from Tampico to Tuxpan, in the valley of Mexico, and elsewhere.

One of the greatest works of man is the drainage of the valley of Mexico, begun early in the viceregal period, if not indeed in Aztec times, but brought to a successful termination only by President Diaz, who has expended on it $30,000,000, not to mention the millions laid out to little or no advantage by his predecessors. The famous Mochistongo cutting was attempted by Enrico Martinez in 1607. During the present century the engineers Simon Mendez and Miguel Iglesias, the latter under the auspices of Maximilian, have given the subject some study, but the engineers who bring forward the present achievement are Luis Espinosa and I Diaz Lombardo. The commission directing the work is composed of Pedro Rincon L. Gallardo. Jose Ives Limantour, Francisco Rivas Gongora, and others. The works consist of three parts, and include a main canal lining extending from San Lazaro gate along the eastern side of the Guadalupe sierra through or near the several lakes to the Tequixquiac tunnel, thirty-five miles in length. Another portion of the works is a tunnel over sixty-three miles, with four arches and twenty-five perpendicular shafts. More miles of cutting have here been done, though not everywhere so wide or deep, as would dig the Nicaragua Canal, over which our railway and politics manipulators in Washington so successfully manage to defeat wise and honest legislation.

Other public works are a breakwater at Vera Cruz; wharf and breakwater at Coatzacoalcos, the terminus of the Tehuantepec railway; a breakwater also at Salinas Cruz, on the Pacific side, at a cost of $5,000,000; and improvements in the ports of Frontera, Laguna de Terminos. There are about a

dozen mints, before mentioned, which coin $25,000,000 a year. The national bank is capitalized at $20,000,000, and issues notes, as do also several smaller institutions.

Doubly impregnable San Juan de Ulua was once regarded, with its dripping dungeons within and guard of sharks without. Vera Cruz was then encircled by a strong wall, and the expense of it all caused Philip II to groan.

"What is your majesty gazing at?" asked the archbishop of the king as one day on the seashore he stood peering across the ocean to the westward.

"I am looking for San Juan de Ulua," replied the king. "It has cost me so many millions that I thought it surely large enough to be seen from here."

Aside from historic interest and internal beauties, the situation and environment of the city of Mexico make it different from any other capital in the world. In and beyond the suburbs are many charming spots and points of interest, while in the distant borders of the valley with their rolling hills and higher snowy peaks, awe-compelling Popocatepetl and Iztaccihuatl, there is a solemn majesty which makes itself felt upon the least sensitive observer.

The three causeways which connected Tenochtitlan, the island capital of Anahuac, with the mainland, were widened by the Spaniards, and are now used for street cars and general traffic. The two open aqueducts, which for the most part follow the lines of the ancient Aztec structures, help to supply the city with water, one four and the other two miles in length. The streets of the modern city are well laid out in regular lines and angles, and for the most part well paved and sewered. The trouble about drainage, arising from the level of one of the lakes which is higher than that of the city, is being obviated as rapidly as possible; it certainly is not to the sanitary advantage of the city that water is anywhere reached by digging two or three feet. Along the better streets the houses are substantially built of stone, three or four stories in height, with paved patios and corridors, and tile or tin roofs. The altitude is so high as not to be pleasant to all, but on the whole the climate is agreeable and healthy; temperature 65 degrees to 85 degrees; always warm at noon where the sun shines and cool at night. Puebla is a cleaner sugar manipulation and healthier city than Mexico, the air being fresh and pure, and the ground not so saturated with moisture or overlaid with dead Aztecs.

The primary object of interest in the present city of Mexico is the Palacio Nacional, on the east side of the Plaza Mayor, where once stood Montezuma's palace, which Cortes reconstructed with additional inner courts and towers. It is now a large and mainly two story series of edifices, fronting 675 feet on the plaza, and containing the offices of the federal government, the army, post office, national archives, and astronomical bureau. In the hall of the ambassadors are portraits of Hidalgo, Morelos, Guerrero, Iturbide, Juarez, and others. On the south side of the plaza is the Palacio del Ayuntamiento, or city hall, where are the offices of the municipal and state governments. Though the first story has massive arcades, the architecture is not as imposing as that upon the east side. In one of the halls are hung portraits of all the rulers of Mexico, viceregal and presidential, from Cortes to Diaz.

The archiepiscopal palace at the corner of Arzobispado and Seminario streets was begun by Zumarraga in 1530, rebuilt in part in 1730, and completed in 1800. The edifice was secularized in 1861, and is now occupied by the internal revenue and other federal offices. When that part of the palace which was occupied by the chamber of deputies, was burned in 1872, the lower house of

congress moved into the old Iturbide theater; the ancient Ensenada convent is occupied by the federal court; while the church of Santiago Tlaltelolco, adjoining the custom house is used as a bonded warehouse. In the calle del Apartado is the Casa de Moneda, or mint, completed in 1782 at a cost of half a million dollars; it was one of the three mints established in America by cedula of the king in 1535, the other two being at Santa Fe, and Potosi, South America. These institutions were at first little more than assay offices, the bars and ingots stamped therein passing as money. In the mint of Mexico City has been coined $2,500,000,000, of which $85,000,000 was gold.

On or near the spot where stood the Aztec temple is the cathedral. The small church erected there by Cortes in 1523 was removed to make room for a larger one later, which in turn was torn down to give space to the present building, which is about 400 by 180 feet, and 185 feet high. It was begun under arrangement between Philip II and Clement VII in 1573, and completed in 1791 at a cost of some $2,000,000, the principal architect being Alonzo Peres Casteneda.

The bell in the western tower, named Santa Mana de Guadalupe, is 19 feet high; the Dona Maria bell in the eastern tower is smaller. The facade is of gray stone and marked off by buttresses into three divisions, which are separated into two parts by cornices, one doric and the other ionic. The bases, friezes, capitals, basso-relievos, and statues are of white marble. Stone statues of colossal size representing actual ecclesiastics and abstract piety, occupy the cornices beneath the domes and under the clock serving as pedestals. The interior is mixed doric and gothic; twenty fluted columns support the roof and separate the nave from the aisles. Over the central arches, which form a cross, rises the dome, and on every side are chapels, altars, statues, and paintings. Conspicuous among the fifty other churches in this city are the Sagrario Metropolitano, adjoining the cathedral on the east, with highly ornate exterior decorations; the structure standing between the two above named, and called the Capilla de la Soledad; and the churches of San Cosme, San Jose, San Miguel, Santa Ana, Santa Catarina, Santo Tomas, San Pablo, and San Sebastian.

Thus we see that few places in the old world or the new are more alive with historic interest than this plaza mayor of the city of Mexico. It was here that the Montezumas lived and reigned, masters alike of the lives and souls of men. Here stood the palaces of the aboriginal nobility, allied to the long line of kings and emperors, and here rose the great pyramid on whose summit the high priest of a bloody religion slaughtered the thousands of victims, which every faith at some period of its history seems to demand. Then came the conquerors, strange men with strange weapons and a new religion, which said peace and good will, but which practiced robbery, treachery, and assassination. For three hundred years thereafter the viceroys of Spain, puppets of old-world monarchy, came and departed, strutting around this square and parading their master's power and glory for a brief period, master and man soon to be swept from the stage by time's relentless hand and lie forever forgotten. Iturbide and Maximilian, widely separated as they were in their attempts, flaunted here their brief spasms of imperialism. Three hundred years of this royal Spanish mummery the people of Mexico thought to be enough; and so they rose up and put a stop to it, and a long line of presidents succeeded to the viceregal epoch, and the voice of liberty was heard in the zocalo, but for a time not unaccompanied by the voice of war. The church would not part with its wealth and power without a struggle, and Juarez was determined that the minds of his countrymen should be free as well as their bodies. All past efforts for good seem consummated under the firm and benignant rule of Diaz, when for the first time since independence from Spain peace and progress have been allowed to prevail. In place of the palace of the Montezumas and the viceroys, we have the palace of the presidents and officials of free

institutions, and in place of the great sacrificial pyramid of the Aztecs there is the cathedral of the Christians with its imposing exterior and twenty-five chapels within.

Forty priests can officiate here at one time. Tens of thousands of people crowd the place on the great feast days, when indeed the whole square is gay with flowers, and merchandise, and men women and children in bright apparel. The cathedral was erected largely by volunteer or semi-enforced labor, and during the palmy days of the priests, when the church owned the greater part of the country, the wealth contained within its walls was immense, golden candlesticks, crosses, and censers, bediamonded chalices, images with rare and costly adornments, paintings, and gold and silver statues studded with gems. Though much has been carried away there is still left many valuable paintings, frescoes, and statues. The zocalo in the center of the square is a garden of flowers and trees, where from a grand stand a good band discourses music to the throng of promenaders.

By the strange irony of fate Mexico's great castle, Chapultepec, likewise is handed down through the long line of Spain's viceroys from the Montezumas to their own people, chief among whom was Benito Juarez, the liberator and ruler, the statesman and patriot equal in purity of heart and enlightenment of mind to any who ever lived, the native American, his blood uncontaminated by any European intermixture. Not that the many changes made in the castle of Chapultepec from first to last have left much of the aboriginal structure, but the great forested rock is there, arrayed in rich foliage and with the aboriginal work performed upon it still plainly visible. The broad boulevard, Paseo de la Reforma, bordered by trees and fine residences, runs straight from the palace in the plaza mayor to the palace of Chapultepec, now adorned with frescoes paintings and statuary, and used as well for the purposes of federal schools as an occasional residence for the president.

The little that is left of the floating gardens of the Aztecs and their surroundings may be now found on the Viga Canal, and its banks, the great highway for fruits and flowers from the lakes of Chalco and Xochimilco. When all around the city was water, and city land was scarce, the lovers of flowers and fruits sought to make more land by binding reeds and bushes into rafts, on which lake sediment and soil were laid, which would grow vegetables as well as fruit-trees and flowers. Several of these rafts could be united, and the floating island made as large as desired. They could be moved from place to place, tied up at a bank, or anchored out in the water by means of poles driven into the bottom. Excursions are made on the canal to Xochimilco Lake and town, and intermediate places, Mexicalcinco, Santa Anita, and the chinampas, as the floating gardens were aboriginally called, and Ixtacalco. The houses in this vicinity are mostly thatched adobe, and the land teems with fruits and flowers; pulque is plentiful, and a happier people than those who here swarm in dirt and rags would be hard to find. Yet this paseo de la Viga was at one time the fashionable promenade, and even now so used during lent. The statue of Guatimotzin, last of the Aztec sovereigns, is seen; it was erected in 1869. The paseo de Bucareli, called the new paseo though now likewise old, is in the southwestern quarter of the city, a statue of victory in honor of Guerrero having been erected, in 1829, in the glorieta, or central circular space of that street. But the most beautiful and fashionable promenade and drive at present are the Alameda and paseo de la Reforma, as before mentioned, on a direct line from the palace to Chapultepec, the former a small park shaded by trees and adorned with flowers, fountains, and statues, the latter a wide drive two miles in length, surpassed by few in Europe or America, having six glorietas, of 400 feet in diameter with stone benches and statues of Carlos IV, Juarez, and others.

Among the still existing buildings of historic interest may be mentioned the Iturbide palace, on San Francisco street, since 1855 a hotel, built on land where formerly stood the convent of Santa Brigida by the wealthy marquera de San Mateo Valparaiso a century and more ago,—a large edifice having several courts and occupied for a brief period by the so-called emperor Iturbide.

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Cuernavaca, where stands the ancient palace of Cortes and the famous garden of La Borda, on which over $1,000,000 were spent by Jose de la Borda, who had made $40,000,000 in the mines of Zacatecas, Tlalpujahua, and Tasco, has an ideal climate, a dry delicious air of uniform temperature, with an altitude less than that of Mexico, being but 4,900 feet. From the plains of Ajusco, 9.000 feet high, a land of pines and potatoes, is a fine panoramic view of the valley of Mexico, 7,000 square miles in extent, cities lakes and snowcapped volcanoes mingling in the perspective. Cuernavaca was a favorite resort of Maximilian, as indeed it has been of many before and after him.

Twenty-five miles from the city of Mexico is Tezcuco, with its ancient fame and interesting historic church. Here lived the learned men of the Nahua nation; hither came their spoiler, and here he afterward dwelt while resting under the cloud of disfavor of his too jealous royal master. Tetxcotzinco has its aqueduct, and still shows the remains of Netzahualcoyotl's terraced hill. Molino de Florez is the country place of the Cervantez family. Tlalnepantla with its quaint Misericordia chapel is a famous place for bullfights.

Puebla is one of the most beautiful cities in the world where the Spanish language is spoken. Its architecture is more than ordinarily pretentious, being at once to some extent original and chaste. The streets are wide and regular, with a water channel in the center, and are kept clean. It is a city of churches, hundreds of spires domes and towers rising high into the transparent air, while the country round is one great garden of aromatic foliage watered by intersecting streams. Hundreds of clanging bells constantly call men to the worship of their maker, whose awful presence may be felt by the devout in the two great fire-mountains, Popocatepetl and Ixtaccihuatl, standing forth as emblems of divine wrath, and brought near by reason of the thin moistureless air. The Puebla cathedral is considered in some respects superior even to that of Mexico City. Zumarraga laid the corner stone of the first Puebla cathedral in 1536; the present edifice was built a century later. It stands on the south side of the principal plaza, upon a slightly elevated stone sub-structure. Statues of the twelve apostles are worked into the iron fence, a memorial to Pius IX, with effigies of church dignitaries, arms of the republic, angels, and basso-relievios on the gate emblematical of the city's beginning. The building is of dark stone, of imposing proportions; in one of the two great towers is a bell weighing nine tons. The interior, particularly, surpasses all other houses of worship in beauty and grandeur, a variety of Mexican marbles and onyx being used in the finish, with figures in bronze and elaborately carved wood, besides large wall spaces covered with valuable paintings, not to mention the highly ornamented altars and chapels. Other important churches are those of the Franciscans and Jesuits. A house in Mercaderes has a mosaic tile front; the church of la Luz and the insane asylum once the convent of Santa Rosa, are similarly conspicuous. The principal plaza blooms as a garden, while the market is brilliant in manufactures of colored straw and other Indian work. In the botanical garden is a distributing reservoir of city water. The country round Puebla, as well as the city swarms with churches. The town of Cholula is little else than a group of religious houses, on the summit of the

pyramid stands one as sentinel over the others. Not far distant from Puebla is Tlaxcala, with its one-story adobe houses, and its town hall of two stories with an imposing antique statue at the entrance.

Vera Cruz, as the chief seaport of Mexico, is an important place, though laboring under disadvantages with regard to harbor and climate. The alameda pants under a covering of verdure, while the marketplace blossoms in tropical beauty. Besides the churches there are the penal presidio, the fortifications, town hall, and the historic island fort of San Juan de Ulua, before mentioned. Jalapa has a government building of which it may be proud; also a cartographical institute.

Orizaba as well as Jalapa dates its beginning long before the conquest, and in the former city the Spaniards had a flouring mill as early as 1550. There are here the usual churches, theater, market, alameda, and educational institutions, not to mention the picturesque surroundings, sparkling streams, glistening verdure, and snow-capped volcano.

The famous mining town of Pachuca stands high above the sea, while two or three hundred gangs of men are tearing up the country round for metal. So with regard to other mining places, notably Zacatecas, some 8,000 feet above the level of the ocean. From the long line of ravine which it fills, the well punctured mountains rise abruptly on either side, preventing that free circulation of air so necessary to health. Besides reduction works there is here an extensive pottery, and by way of religious edification several houses for penitential pilgrims.

Aguascalientes has a beautiful plaza and garden, government and municipal houses, annual fair buildings and scientific institute. Leon is a manufacturing city, tanning and working in leather, working in cotton and woolen cloths, and making hats, soap, and cutlery. Guanajuato, with narrow winding streets, lies in a ravine inviting floods and breeding pestilence while giving to the world new millions of money. Here is the famous Alhondiga seized by Hidalgo at the outbreak of the revolution and where later were displayed the heads of the patriots. The building is now occupied as an industrial prison, and before it is a bronze statue of Hidalgo. The Jesuits have here the best church, nearly half of its cost being expended in blasting a site out of the mountain side. In the plaza mayor of Queretaro, where Maximilian used to walk and ponder amid the palm and banana trees while undergoing the siege which resulted in his death, is a fountain and a statue of Aguila. In the legislative building, which has a fine garden, are portraits of governors, and belonging to the city is a valuable stone aqueduct. Cotton cloth and leather are made here. It was indeed a beautiful city before the revolution, having had for nearly a century its aqueduct two leagues in length the arches, supported on 72 pillars of hewn stone 18 varas apart and 27 varas high. In 1793 the cloth and tobacco factories each employed 3,000 workmen, the latter making yearly cigars and cigarettes to the value of $2,200,000.

Guadalajara is a fine city, 5,200 feet above the ocean, with a sapphire sky and altogether delightful climate. The cathedral, painted in blue and gold, attracts the attention of beholders, as do also the bullfight amphitheater and opera house. Then there is Colima, as is the case with many Mexican towns, a sprout of civilization grafted on to aboriginal stock. It sits well up among the hills with a show volcano rising high in the air and sending forth destructive fires, if not often yet with a certainty of recurrence.

Lower California is a poor country, though possessing some minerals, gold silver copper and lead, and some grazing lands of a rather dry and thin variety. The silver mines near La Paz help that town to

develop its points of merit, which may be seen in the broad straight shaded streets, bordered by white-washed stone and adobe houses of one story with green Venetian blinds.

Far away to the southeast is Merida, the capital of Yucatan, standing upon the site of an Indian village, where used to dwell Simon Peon, owner of Uxmal, once greater than Merida, or even Yucatan. But the aboriginal town where Merida is must have been something, for there are in it even now remains of Indian buildings which were there before the conquest; this upon the authority of John L. Stephens and others. Fifty years ago the bishop was the greatest and richest man in Merida; but it is not so today. Once the church was over all and above all, but it will never wield such power again. Like the pope of Rome, the bishop of Merida had his palace adjoining the cathedral, all imparting the air of a new world Vatican. Here lived luxuriously Christ's vicegerent, in stately halls with elegant furnishings; at his table he and brethren fared sumptuously every day, and slept the sleep of the just. Simon Peon had a fine hacienda between Merida and Uxmal.

The main building was of stone, a high arcade running along the whole of the 150 feet of front, under which was a long stone trough in which the cattle found water. There was also a large reservoir of water in the hacienda yards. Among other factories was a rope walk for the working of hemp raised on the place. To the place, by a kind of peonage, were bound 1,500 Indian retainers. Haciendas are the farm-houses of Spanish America. They are farms only on a large scale, with thousands of acres and thousands of live stock, and of retainers; every hacienda is in charge of a major domo, who manages the estate, and is master absolute in the absence of the owner.

Miscellany

In India the ruined cities of Cambodia, with temples and palaces as grand as any, remained until recently undiscovered, since the relapse of that country into barbarism. Beside a lake bordered with lotus stands a long row of columned galleries, behind which rising out of groves of palms are three great pagodas. And as nearly as we can judge it was during about the same period of ancient Nahua rule in Mexico, from the second to the fourteenth centuries, that Cambodia ruled the Indo-Chinese peninsula, having an army of 600,000 foot soldiers, 70,000 elephants, 200,000 horse, twenty kings being tributary.

The tierras templadas, which overspread the tablelands, are more valuable for grazing purposes than for cultivation, but the tierras calientes of the hot border are extremely prolific. Vast areas on the plateaus and slopes grow all the grains and fruits with irrigation. Agricultural implements are crude, the native plough being of wood with iron point.

Before the conquest, the Aztecs were well advanced in mining and agriculture. They had large cities, and skilled artisans and well-tilled fields, so that when the raid of Cortes was achieved they were, as compared with other aboriginals, a wealthy people. They had plantations of maize and cocoa which the Spaniards were only too glad to take from them, but not unless they could enslave the native laborers under their encomienda system. So with the mines, and the slavery there practiced in the name of peonage. It was an old and simple trick; pass a law that no laborer in debt can leave the mine, then open a store and give him rum, tobacco, and whatever else he wants, on credit, and you have him bound to you forever, for he will never pay his debt as long as he is at liberty to increase it. Maize and maguey were the two great crops of the central plateau in times past as in times present, which supplied the food and drink of Mexican gods and Mexican men. A failure of the corn meant famine; 17,000,000 fanegas was the total crop at the beginning of the present century. Both of these plants were utilized wholly. Corn supported animals as well as men; the liquor chica was made from it; sugar was made from the stalks, and cigarette and tamale wrappers, and beds, and other things, from the leaves. To the Indian the maguey plant gave not only food and drink, but shelter and clothes, and all that he required; its leaves covered his hut; from the fibers he wove cloth and of the pulp made paper; the pulque from the plant was his beer and the fermented juice of the root his brandy; if sick there was medicine and sugar in it, if well, much comfort. Nothing that Europe could give him, wheat, barley, horses, cattle, Christianity, and small-pox, could make up for the maguey, had he to give it in exchange. Back in the middle of the last century the government derived an annual profit of a million of dollars from pulque. Native imitation and ingenuity in manufacturing has ever forced the admiration of Europeans. In feather-work the Aztecs at the time of the conquest were superior to any people in the world, and in cotton fabrics they were but little if any behind the foremost. In gold and silver work, in the manipulation of precious stones and pearls, and in the manufacture of fine jewelry they were not surpassed by any European artisan. And when they were called upon to do the leather, stone, iron, and wood work of the European, they were not found wanting.

The Nahuas brought to Anahuac gold from the south, silver and tin from the mines of Taxco and Tzompanco, and copper from Zacatollan, Cohuixcas, and Michoacán. Gold was found in larger or smaller pieces on the ground, in the crevices of rocks, and in the beds of streams; the fine dust was

kept in tubes or quills, the nuggets were melted into bars or wedges. The Aztecs knew not iron, but quicksilver, sulfur, alum, and ochre they applied to various purposes.

In the states of Guerrero, Oaxaca, Chiapas, Tobasco, Campeche, Yucatan, Vera Cruz, and Tamaulipas, which cover nearly two-thirds of the republic, the products of both temperate and tropical regions can be raised; as of the former, cereals, fruits, and woods, and of the latter coffee, cocoa, vanilla, dye-woods, rice, and cotton. On the table land maguey and maize are still the staples. The wealth of raw material for manufacturing purposes is incalculable, much of it growing wild. Cortes was the first to make sugar; there are now over thirty plantations in Morelos alone. Of textile plants there are over twenty kinds of agave, several species of palm, and many varieties of others. Endless are the minerals abounding all over the great central plateau; coal and coal oil, salt, sulfur, lime, gypsum; precious and base metals; and precious stones,—opals, agates, emeralds diamonds, and the rest.

In 1800 the mining region of New Spain covered over 12, 000 square leagues. One single mine the Valenciana, in five years yielded $14,000,000, as much as all Peru put out in silver during that period. Hidalgo is a rich mining state and the mines of Pachuca are now for the most part provided with good hoisting works. One mine, the Viscaina, on which was spent in 1760 $2,000,000, has yielded in 300 years $200,000,000. Chihuahua has some rich mining districts, one, the Eulalia, producing in 37 years $344,000,000. In Mexico, as in the Taquil mines of Chile, and nearly everywhere in Spanish America, the ore was in early times brought up from hundreds of feet underground by natives who climbed notched poles with 200 pounds on their back. The Coquimbo mines used formerly to yield 2,000 pounds of silver yearly.

The feather-work art of the Nahuas is still extensively practiced by their descendants. Very beautiful are the pictures made by the use of the feathers of the bird they wish to portray, gluing them on a card in their proper place to make the representation natural and perfect.

His position assured, Cortes was broad-minded in laying the foundations of government, and liberal to the church, as he could well afford to be. He was very pious, though with little thought of applying the ideal to the incidents of life, a missing link in religion which neither Christianity nor mohammedism has yet supplied. Ungrateful and contemptible were the sovereigns of Spain, who treated so outrageously their discoverers and conquerors. "Who are you?" cried Charles V to Cortes on one occasion. "One who has given your majesty more countries than he had cities before," was the reply.

Cacao beans and measures of maize were used as currency by the natives. In 1526 the cabildo of the city of Mexico permitted the converting of tepuzque gold, at the smelting works, into pieces of one, two, and four tomines, and of one, two, and four pesos de oro. In 1535 a mint was established.

Mexico has yielded since the conquest $5,000,000,000 of gold and silver, of which the larger part has been coined.

The aggregate capital invested in mining in Mexico approaches $1,000,000,000, with a yearly production averaging $10,000,000 for a period of 370 years, but which has risen during the latter part of the century to an annual production of gold and silver of $42,000,000. Copper to the value of $2,500,000 is annually produced in Lower California, Chiapas, Michoacán, and Jalisco. Coahuila exports 500,000 tons of coal, worth $4,000,000. Add to these amounts other minerals and metals

from all the states, say $28,000,000, and the mining production of Mexico is brought up to $70,000,000 per annum.

I find the following estimates of total outputs: Guanajuato, $1,000,000,000; Zacatecas, $800,000,000; Chihuahua, $650,000,000; Durango, $200,000,000; Sonora, $200,000,000; Hidalgo, $300,000,000.

Before the Spaniards came Guanajuato was famous for its mines, and before the Valenciena, 2,000 feet deep, was flooded, the total annual output of all the mines was $8,000,000. The city, under Spanish regime, dates its beginning 1554 and, as building ground was scarce the houses were made three and four stories high.

Hidalgo has large deposits of galena; there are valuable lead mines in Queretaro, Oaxaca, and several other states. So it is with regard to copper, zinc, platinum, tin, and other metals, to the elucidation of which subject I devoted a volume in 1892 entitled, Resources of Mexico.

There is a large body of good iron ore on the seaboard of Lower California, upon the very verge of the ocean; the Tepustete Iron Company forfeited their charter for failing to build a pier at Ensenada.

Losses by shipwrecks and pirates for the ten years preceding 1640 were estimated by Palafox at $30,000,000.

Under the rule of Viceroy Alva, 1,000,000 pesos belonging to private persons were seized by order of the king and sent to Spain in 1649.

The great cathedrals and other churches and religious buildings of Spanish America were erected for the most part during the three centuries of viceregal rule, and might safely be estimated as costing not less than $4,000,000,000.

Some few of the king's representatives were men of probity, and commanded the confidence of the people. Bucareli, for example, 46th viceroy, being in need of funds for mint purposes, the merchants lent him $2,500,000 without interest or security.

Smuggling under the viceroys assumed gigantic proportions, the operations of the South Sea Company, slavers, and private adventurers for a period of 28 years, in the early part of the 18th century, amounting to no less than 100,000,000 pesos.

In the palmy days of Spanish rule when the richly laden galleons arrived from the Philippines, an annual fair was held at Acapulco in February, when traders flocked in from every part of New Spain, and even merchants coming from Peru with two or three millions of pesos with which to purchase Chinese goods. The customs duties on a single ship sometimes amounted to $100,000, not to speak of smuggled goods or bribery.

Jose de Iturrigaray, 56th viceroy of Mexico, upon the occasion of a state visit to the mines of Guanajuato was presented with 1,000 ounces of gold. Though the expenses of this imitation of royalty far exceeded his salary of $60,000 a year, he managed to make himself rich while in office.

The crown rentals which drew money from the people of New Spain into the royal coffers numbered more than sixty, and yielded from 1522 to 1804 $1,940,000,000 or $6,830,986 a year.

Viceroy Revilla Gigedo the Younger, who came hither in 1789, did much to purify and improve the capital, both morally and materially.

The viceroy Galvez, in 1790, spent a large amount in building for himself a palace on the heights of Chapultepec, to which expenditure the crown too late interposed objections.

At the close of the 18th century 5,000 persons were employed in the tobacco factory of the city of Mexico.

Branciforte was a name rendered infamous by a viceroy who in 1797 carried back with him $5,000,000 which he wrung illegally from the people, and which even his sovereign failed to get away from him.

When Iturbide had himself crowned as emperor, the country was too poor to bejewel him as he desired, and the national pawnshop refused to lend him diamonds and pearls for that purpose; hence he was obliged to put up with regalia glittering with fictitious splendor. Once safely seated on his throne as he fancied, he ordered a forced loan of $2,800,000, and at the same time seized $1,300,000 in transit for Vera Cruz, which arbitrary proceedings hastened his downfall.

The old inquisition building in the city of Mexico is now used for a medical college, the covered way through which victims were conducted being in ruins.

Mexico's first great railway, from the capital to Vera Cruz, 263 miles main line and 30 miles branch to Puebla, cost a little over $36,300,000, not far from $125,000 a mile; average net income $1,500,000 per annum.

The largest market in Mexico city is the Volador, in the plaza de la Universidad, south of the federal buildings, ground rent for the same being paid to the heirs of Cortes for two centuries. There is a flower market west of the cathedral.

For an actual indebtedness of less than $3,000,000, persons in the United States put in claims against Mexico for $12,000,000, while demagogues desirous of more slave territory set on foot the war which made Zachary Taylor president.

The Mexican war cost the United States 25,000 lives and $166,500,000. Add to this $15,000,000 as the nominal price of territory, and $3,500,000 for claims, and we have the cost of the California country.

For their brief play at imperialism in Mexico, Napoleon III and Maximilian I must account for the loss on both sides of 20,000 lives and $100,000,000 in money, aside from $200,000,000 liabilities of the empire at the end of 1866.

On assuming the purple in America, Maximilian was assigned a civil list of $1,500,000, as in the case of his imperial predecessor Augustin I.

Ever since Eads set rolling his project of a ship railway across Tehuantepec nearly half a century ago, there have not been lacking men who professed to believe in it. Meanwhile Diaz has made the freight and passenger railway a reality, which is better than many visionary schemes.

Not long ago, Mexico City and country, had a coin surplus of $100,000,000,which was something unusual.

The 3,000,000 beautiful dollars coined in the mint of Mexico by Maximilian were for the most part afterward recoined by the republic.

The bullfight obtains only in certain places in Mexico; theaters are everywhere. In the larger cities are some fine opera-houses. There is no lack of newspapers in the more settled parts. In common with progress in other matters, penal establishments have undergone many needed reforms.

The Spanish American countries possess libraries which are greatly valued. In Mexico there are public libraries in only sixteen states of the republic; and but a small proportion of the contents consist of modern literature. A large number of the books and papers in the collections contain important matter for the historian and bibliographer, having come out of the suppressed convents, etc. The aggregate of books existing in all the public libraries probably exceeds 250,000 volumes. There are between seventy and eighty scientific societies in the republic—the chief of which is the Sociedad de Geografia y Estadistica—each one having a collection. The above named society possesses an excellent library. After the liberal regime became triumphant the government undertook to form a national library with the collections existing in the cathedral, university, and convents. This project was carried out in 1867. Two copies printed in Mexico must be presented to the library. The only other library existing in the city of Mexico is that belonging to the Lancastrian society, known as the Cinco de Mayo.

Chapter the Twenty-Second: Canada

Comus. O foolishness of men! that lend their ears
To those budge doctors of the Stoic fur,
And fetch their precepts from the Cynic tub,
Praising the lean and sallow Abstinence!
Wherefore did nature pour her bounties forth
With such a full and unwithdrawing hand,
Covering the earth with odors, fruits, and flocks,
Thronging the seas with spawn innumerable,
But all to please and sate the curious taste?
And set to work millions of spinning worms,
That in their green shops weave the smooth-haired silk.
To deck her sons; and, that no corner might
Be vacant of her plenty in her own loins
She hutched the all-worshipped ore and precious gems,
To store her children with. If all the world
Should, in a pet of temperance, feed on pulse,
Drink the clear stream and nothing wear but frieze,
The All-giver would be unthanked, would be unpraised,
Not half his riches known, and yet despised;
And we should serve him as a grudging master,
As a penurious niggard of his wealth,
And live like Nature's bastards not her sons,
Who would be quit« surcharged with her own weight.
And strangled with her waste fertility;
The earth cumbered and the winged airdarked with plumes,
The herds would over-multitude their lords;
The sea o'erfraught would swell, and the unsought diamonds
Would so emblaze the forehead of the deep,
And so bestud with stars, that they below
Would grow inured to light and come at last,
To gaze upon the sun with shameless brows.
—Milton

Before the new world was known to the old or the old to the new, there lived, and, ruled, and fought, and died, in various parts, men and women of various kinds and colors, all enough alike to be regarded as beings of the same species, but with origin and destination alike unknown. Hence it is that at no time or place in the history of humanity is a better opportunity afforded for the study of men's actions under various conditions than in the seizure and occupation of the several parts of America by the different European powers. Given human nature as a whole, with considerations of the varied temperaments characteristic of the Spaniard, the Frenchman, the Englishman, and the aboriginal American, and the climate and other conditions in which they are severally placed, and their actions can be as completely analyzed and as readily explained as any reaction in chemistry. And the chief conclusion is this, that the more we look into the nature and attributes of the animal man, the less inherent differences we find artificial or actual differences arising almost altogether, from differences of environment and training. Nationality and sect have less to do with the making of the man than association and the teachings and training of parents and preachers. It is no question of individual intelligence or will; out of the same clay is molded a vessel for good or evil; of the same steel may be made plowshare or sword; of the same sect angels and devils. The ambitious Spaniard, priest or adventurer, permeated with a thousand-years effect of the example and teachings of Christ, turned loose among the naked adherents of another religion straightway became fiends; the puritans of old England fleeing from persecution, in New England in the prosecution of their own persecutions, in like manner became fiends, just as the aboriginal American manifests his native and instinctive fiendishness when he catches and tortures Spanish priest or English puritan. Little there is to choose between them, whether in regard to religion or superstition, cruelty or revenge.

The boundless wealth of the two Americas rapidly multiplies by European occupation and civilization. Though there is scarcely room here, and work, for all the world, as was once maintained, yet these first three or four centuries are only the beginning of what is to be. It was the mistake of Spain and her adventurers to strip the country of its surface wealth with so little regard to its future welfare.

Agricultural and grazing lands in their vast extent and productiveness were not of primary importance in the eyes of the conquerors. They wanted gold, which signified immediate opulence and a speedy home return. The English colonists took a different view. They came to stay, bringing home with them, and planting it in virgin soils where the increase would be without end. Therefore they valued land, liberty, and social and intellectual advancement, and were satisfied with a slower accumulation of material comforts and luxuries. In the north and west furs were the attraction, and so Canada came in for a share of attention. The treatment of the aboriginal inhabitants in these various parts was in accordance with the several views of the incomers. Thus the French, English, and Scotch companies, desirous of keeping their domains as a game preserve, with the men found there for hunters and trappers, made overtures of friendship, and were in the main friendlily received by the children of the forest. The English colonists wanted cultivated fields, with broad acres quickly cleared of forests and forest inhabitants; and so the wild beasts and wild men were killed or driven back to make room for the stronger race.

Proselyting, as a business or profession, was more pronounced in Spanish than in either French or English occupation. These last had their missionaries, it is true, and their fierce fanaticisms and other, foolishness, but the sacred and secular were less united than in the first instance. The French and English seemed to believe less in their religion, to make faith and works not so much one, the affairs

of this world and the next not the same as did the Spanish friar and soldier. Nearest to the priest when he offered salvation to the savage was the conqueror; nearest to the conqueror, upholding him in his treacheries and cheering him on in his butcheries of the savages who would not receive the sacraments of a strange savior, was the priest. To those who would accept their plans of making the best of both worlds, both priest and soldier were kind and considerate, far kinder than ever were the English colonists of Great Britain. With the Spaniard the love of gold, accompanied by the love of God, and all intermingled with the love of glory, brought in the savage for special dispensation. First of all he must be theologically classified as something with a soul; not brute merely, but human, and heathen, thus affording good work and offering good spoils to Christian endeavor. The Spanish cavalier did not want the Indian injured; he might be put to better use than butchery after yielding up his possessions and accepting the imported faith. Unlike the English emigrant, the gentleman from Spain did not like work; he did not like the labor even of gathering the gold he so ardently desired. And when it came to broad plantations of maize, sugarcane, rice, and tobacco, the labor of the native was essential. True, slave-catching cruisers might help out, but civilized sentiment soon began to frown on human slavery, and to abolish it in Spain long before the Anglo-Americans set free their human chattels.

It is worthy of note how fate threw people from the several parts of Europe upon those several parts of America best suited to their habits and traditions. Had Columbus bent his course a little more northerly and struck the coast of New England, and had Cabot sailed a little more southerly, along through the islands and to the mainland of Honduras, the history of America would read quite differently. The Englishman fighting redundant nature in the tropics, under a burning sun, midst malaria and morass, poisonous reptiles and poisoned arrows, would cut no more graceful figure than the Spanish cavalier with belted sword and plumed helmet clearing the northern wilderness. And in the farther north, who so well as the mercurial Frenchman could have paved the way for the thrifty Scotchman in the forests of the fickle savages? With almost supernatural instinct the Spaniards scented from afar the treasures of Montezuma and Atahualpa, even as the pilgrims scented empire on the iron-bound shore of Massachusetts.

Again, the class of adventurers from Spain to the new world was quite different, socially, from that which came from England. The Spanish cavalier was of the species gentleman; the English colonist was not. Among the ironies of industry and wealth there is none greater than the maxim which makes labor less honorable than loafing; which makes the honest creation or accumulation of the wealth on which fatten the lazy aristocracy as nobility, and royalty, they are severally called less respectable or praiseworthy than to eat the bread of idleness and to live upon the labor thus despised. The nobility of Europe do not earn money, they only inherit; the nobility of America do not inherit, they create. On one side of the Atlantic a man is prized in this regard according to his worthlessness; on the other side, he who falls heir to great wealth is but a receptacle for certain millions, round which, if he does not squander them, he is permitted to wrap his name.

Such a man among people of sense, is but the measure of money; his name in America signifies nothing noble, nothing useful; he and his millions are but a machine for the making of more millions. He is not permitted even the silly satisfaction of wearing a title. No one calls him count or don; no place is kept open for him in social or political circles by reason of his heirship. He is neither useful nor ornamental, a thing out of place, a man turned into a money-bag. It is in imitation of the gods that men achieve distinction. There are gods who inherit; but these are not greatest. The creators stand at

the head of the universe, inferior deities bowing before them. The nobility of Europe are descendants of the gods, but they are not gods. In all that is worth living for they are as worthless as the windy title to which they attach superlative importance. This title is not only superior to the man, but it is all there is of the man, all there is to stand in the place of a man. It is a relic of the idiotic and barbaric significant of brute force and imposition now worn as children and savages wear a worthless bauble, not being a true jewel or anything real or genuine. It is in no sense a mark of merit, or a thing to lift a man above his fellows as is, intended, except in societies as effete and mind-enslaved as itself. And as among men, so in the mountains. Gold in the soil, like wealth inherited by the son, too often breeds poverty. Look at the metalliferous districts throughout the world, the places where gold has most abounded; compare them with agricultural and manufacturing countries, and see which are the most prosperous and wealthy today. Then among men; those who have inherited wealth, what are they? As a rule the dudes and dummies of society, the imitation and sham of progress and not the substance. Whereas those who have had to carve their own fortune out of earth or air or water, or other elemental substance; who have had to work out their own destiny, perhaps under great tribulation, these are the men of which civilization is made.

Before the coming of the Europeans the metals were comparatively little used by the natives as money. Such of them as were known were easily obtainable, and of no great value. Very sensibly the savages when they saw iron were ready to exchange an equal weight of gold for a knife or an ax. Nor aside from the civilized nations of Mexico and Peru, did the American aboriginals possess much of what the European calls wealth. There were first of all the skins of fur-bearing animals, which the fine ladies of Christendom do not to this day disdain wearing; gold in places they could gather, but the mere possession of it they valued little, and the use of it as money they scarcely seemed to think of, as I have said. Furs were a valuable consideration in their exchanges; shells were largely used as money, and later the glass beads of Europe. Blankets were prized, likewise horses, guns, and whiskey, but these were of later development. The antiquities of Mexico, Central America, and Peru show signs of grandeur somewhat greater perhaps than that existing at the time of the conquest, but not necessarily evidence of greater wealth. Little of value was found left by the mound builders of the northeast, though there have been found vases of earthenware and copper, personal ornaments of shell and mica, and weapons of stone, copper, and obsidian. The Pueblos, or town builders, of Arizona and New Mexico show in their manufactures of cloth and earthen and willow ware, in their domesticated animals and their agricultural productions, further advancement than had been attained by the American Indian of the north. It is among the cunninger but not more noble Nahuas, Mayas, and Quiches of Mexico and Central America, and the Peruvians of South America that we must look for the highest aboriginal development.

The Casas grandes of Chihuahua, the edificios of Zacatecas, the pyramid of Jalisco, the hieroglyphic sculptures of Mexico and Tula, the mounds and monoliths of Teotihuacan, the bridge at Huejutla, the mythological carvings and the calendar and sacrificial stones, the pyramids of Xochicalco and Cholula, the relics at Cuernavaca and Nativadad, and the antiquities of Vera Cruz and Oaxaca bear witness to an aboriginal culture second only to that in and around the hypothetical cradle of the human race—Assyria, Chaldea. and Egypt.

As we proceed southward the monuments become yet more massive, as I have shown in the preceding chapters. There are the remains of four palaces at Mitla, with carved facades, stone columns, mosaic grecques, and roof structures which command the admiration alike of artist and antiquarian.

Palenque displays among its numerous palaces and pyramids beautiful bas-reliefs in stucco, arched corridors, sculptured figures and groups, carved temples and tablets, and hieroglyphic writings on stone. In Yucatan are many ruined cities, as at Uxmal, with its magnificent casas del Gobernador, the Tortugas, Palomas, and Monjas. On the court facades of the last named building, the Nunnery, are exquisite carvings in detail, with high vaulted rooms within. Guatemala can show aboriginal copper medals, fortifications, statues, and the relics and ruined palaces of Utatlan, Peten, Tikal, Patinamit, Petapa, Rosario, Chapulco, Chinamita, and Quirigua. The ruins of Copan are famous, with its great temple, pyramids, sculptured obelisks, statues, idols, and sacrificial and temple altars, the last named bearing elaborate hieroglyphics. Passing the pottery and carved idols of the Isthmus, and coming to Peru, we find copper implements, golden and silver vases, fine pottery, not to mention the towns and temples, the cities of the Incas, and the gardens and palaces with profuse manifestations of wealth on all sides. But the people who wrought these great works were no better in any respect than the forest-dwellers of the north. Indeed, as society regulates its admiration now, they were much worse. Citizens of the southern civilizations were largely laborers, food-producers, clothes-makers, house-builders, and wealth-creators. The lordly aboriginals of the north were all of the aristocracy and nobility; not one of them would work; labor was not for men, only for women. Like the European gentlemen, the Indian scorned labor, and would follow no trade or occupation save that of butcher, butcher of beasts and men.

Canada at present comprises the whole of British North America, an area of 3,500,000 square miles, with a population of 4,000,000, one-quarter of which is of French descent, and 85,000 Indians. Soil and climate here are not so varied as the vast extent of territory might lead one to suppose. Hyperborean in situation, in the main, and excepting the Laurentian and Rocky ranges, the country is low and level, the temperature except on the Pacific being higher in summer and lower in winter than in corresponding transatlantic latitudes. Over a large part of the level surface are spread alluvial deposits thirty or forty feet deep, good for growing wheat; also good soil with substrata of limestone, trap, serpentine, and red sandstone; and again gravel overlaid by rich loam and covered with forests. Large areas consist of prairie lands interspersed with groves, belts of timber marking the course of rivers, and forests interspersed with prairies. The whole region is well watered by thousands of lakes and streams, not to mention the bay of Hudson and the great lakes emptying into the ocean through the River St. Lawrence.

All the fruits vegetables and grains incident to northern climes grow well in Canada, and in places even rice and tobacco. Indigenous here are fruits berries and the vine in many varieties; then the forest and prairie has each its own wealth of flora. White and red pine are plentiful, and in places ash elm beech walnut and birch, also the maple, which yields in sugar sometimes 20,000,000 pounds in one season. To the dominion the forests are worth $30, 000,000 a year, the total of all exports being some $80,000,000. Among the fauna are almost all the fur-bearing animals, and in the waters are every kind of fish, the latter an inexhaustible source of wealth while the former are constantly diminishing in numbers. The annual fish product is $12,000,000, while furs yield less than $2,000,000. Silver is found at Lake Superior, gold in abundance west of the Rocky Mountains, and coal in Manitoba and British Columbia.

Sailing from Bristol in 1497 under patent of Henry VII, John and Sebastian Cabot ran against land at or near the mouth of the St. Lawrence, and the year following Sebastian the son made a second voyage, and examined the coast between latitudes 67 degrees, 30' and 38 degrees.

France also desiring a slice of the newly found lands authorized a voyage of discovery by a Florentine navigator,Verazzano, who in 1524 coasted Florida and along to Cape Breton, claiming what he saw for Francis I, and calling it La Nouvelle France. Then came Jacques Cartier and explored the coasts of Newfoundland, Nova Scotia, and New Brunswick, and planted there the first European settlement in 1535. For two and a quarter centuries thereafter, Acadie and Canada were provinces of France, and when in 1759 the English took possession, 65,000 Frenchmen were forced to change their allegiance or leave the country. Many of the old colonial French laws and customs remained; rights of property and religious freedom were respected.

England and France worked each after its own way for possessions in America, only to fight it out in the end, when he who could endure should possess the whole. Thus while James I was establishing colonies in Virginia and elsewhere, Champlain was planting French settlements at Quebec and Tadousac. And a little later, while the New England puritans were hanging Quakers, burning witches, and preaching the Indians to death, the English and French in Canada were saving the savages to help white men in the butcheries which should end in the extermination of both wild men and beasts. In the war of 1628 between France and England Canada suffered severely; Champlain was forced to surrender to Kirke and returned home to die. La Salle ascended the river above the falls of Niagara, crossed lakes Erie and St. Clair and came to lakes Huron and Michigan, whence Hennepin penetrated to the sources of the Mississippi, down which stream La Salle floated, securing vast pretensions to France. Meanwhile the work of crushing and converting continued, new camps were established and the old ones fortified, churches and prison-houses were built, and the horrible human manglings and massacres with hellish fire-water and imported diseases, all in the name of Christ and civilization, were continued.

As the French and English fancied they had something to fight about at home, so the French and English in America felt it incumbent on them to kill one another as they were able. Frontenac, with such Indians and Frenchmen as he could command attacked the English colonists in New England and New York, who with their Indians fought back, both sides swinging sword and scalping-knife according to creed and custom. Frontenac wrought no great damage, while a Boston expedition against Canada in 1710 failed entirely. Fighting in America continued—even after the peace of Utrecht in 1713, and when war was again declared in 1745, it was quite natural to continue the fight in the wilderness where they had left it off. Another peace was followed by more war, until at Quebec, in 1759, was fought the battle which made Canada forever after English.

In the war of 1812 between the United States and England there was a little more fighting in Canada. While the Americans were victorious on the lakes, Hull surrendered Detroit to Brock.

Van Rensselaer failed in his attack at Queenstown. Dearborn was obliged to retire his forces from Lower Canada, and Smith failed at Fort Erie. So the foolishness continued. Washington falling and 2,000 British soldiers meeting their death at New Orleans for nothing. England meanwhile being occupied with more momentous affairs at home, both sides were glad to quit, and for a long time the English and French in America had peace.

New France, or the Canada of the French, was confined for the most part to a strip three or four hundred miles wide extending from the great lakes eastward to the gulf of St. Lawrence, and was later known as Lower Canada, the region north of this strip being settled exclusively by the English and called Upper Canada. In 1791 a constitution with an elective legislature took the place of the governor

and council provided by the crown, which up to this time had ruled the country, and two years afterward a protestant bishop of Quebec was named, and later a cathedral was erected. Under the name Dominion of Canada, all the provinces of British North America, in 1867-72, united into one legislative confederation, the provinces thus uniting being those of Upper and Lower Canada, now called respectively Ontario and Quebec. Nova Scotia, New Brunswick, Prince Edward Island, Manitoba, and British Columbia, provision being made likewise for the admission of Newfoundland.

With executive authority vested in the sovereign of England, represented in the colony by a governor-general and privy council, the dominion constitution further provides for the exercise of legislative power a parliament, consisting of a senate or upper house and a house of commons, the former nominated for life, and the latter elected by the several provinces according to population.

Had England made the conquest of Canada earlier than she did, say by half a century, she would have been treated by her benign mother as were the thirteen colonies, and would undoubtedly have joined them in their declaration of independence in 1776. But now the time has past when English colonies are governed in London, or exist solely for the advantage of the mother country. The crown, as a rule, merely supplies a chief executive officer, leaving them to elect their own parliament, which is usually done by universal suffrage. Neither are the colonies great burdens to the crown, but bear the expenses of government and defense themselves; nor yet specially advantageous to the parent state, imposing at pleasure protective duties on its products as upon those of any other nation. One advantage in the alliance is that the colony receives protection from a great power without the expense of a large standing army.

The province of Quebec presents a surface of great variety and beauty. Hills and mountains rich meadow lands, and stately forests, all diversified by lakes and rivers cascades, and waterfalls, and bordered by verdant isles display a hundred charms peculiarly their own. Along the south side of the St. Lawrence extend the Appalachian Mountains, flattening at the gulf into a broad tableland. Vessels of 5,000 tons ascend the noble river to Montreal, above which point navigation is impeded by rapids, but continued through canals with suitable locks. Geologically, the Laurentian system obtains in the northern part of the province, giving way in the west to Potsdam sandstone overlaid by dolomitic limestone, and on this the fossiliferous limestones of the lower Silurian. It is from these limestones and the Potsdam sandstone that the best stone for building purposes is obtained.

The city of Quebec, once a walled town, stands on an elevated headland, on the left bank of the St. Lawrence, the elevation crowned by a citadel covering forty acres, which besides picturesque effect gives the city a strong fortification. The harbor is spacious, and the docks and tidal basin complete. A steep winding street, with narrow steps and elevator, connect the upper and lower parts into which the city is divided, the latter being mostly devoted to business and the former to residence, religion, and government. On the plains of Abraham is a column forty feet high erected to General Wolfe on the spot where he died victorious in 1759. Wolfe and Montcalm have a column 65 feet high in the governor's garden overlooking the river. Occupying prominent positions are four martello towers; in St. Foye road is a bronze statue on an iron pillar given by Prince Napoleon. A fine promenade is the Dufferin terrace which includes the site of the old chateau St. Louis, burned in 1834. On the Grand allee are the parliamentary and departmental buildings, custom-house, court-house and post-office, and the houses of many political, literary, religious, and charitable societies, besides churches, cathedral, and synagogue. The city is supplied with water from Lake St Charles, and has gas and

electric lights. Samuel Champlain discovered the lake which bears his name in 1609; at the outlet now stands Fort Montgomery.

Montreal, or Mount Royal, takes its name from a mass of trap rock which rises through a limestone stratum to a height of 700 feet behind the series of terraces on which the city is built. The city now covers eight square miles, the principal streets running parallel with the river. Conspicuous among the works of man is the Victoria Bridge which here spans the river; it is of tubular iron resting on 24 stone piers, and made to withstand a severe pressure of ice. The descent of the rapids above the city may be safely made in boats, which must return however to Lake St. Louis, nine miles above Montreal, by the Lachine Canal, the fall of water in which supplies power to several, wood, iron, and sugar mills. Owing to the many creeds of its mixed population, the city swarms with churches, convents, hospitals, and colleges, each denomination seeking to outdo the rest in securing for itself the best in this world and the next. Here we have in the metropolitan cathedral a St. Peter, in imitation of the great structure in Rome. Ten thousand people worship in the parish church of Notre Dame; the Jesuits have a large church with elaborate interior decorations, and near it is the college of St. Mary. In Christchurch the Protestants have a fine specimen of Gothic in limestone, lined within with Caen stone. French and English asylums of every kind abound, and among the civic buildings the city hall and court house, standing between the Champ de Mars and Jacques Cartier square, command attention. In St. Paul Street is Bonsecours market, the dome of which is seen from ever square, and prominent among the educational institutions is the McGill College.

For those who fancy Winter sports, Canada offers an inviting field. There are ice yachting, tobogganing, Curling, skating, sleighing, snowshoeing, and the ice palace and carnival gaieties at Montreal and elsewhere which tend to make this region the winter playground of America. It is then that the native appears in his characteristic winter dress of blanket coat and deerskin moccasins, ready to defy the whistling north wind and meet with favor the flashing sun and crisp inspiring snow, the latter covering the ice in Quebec five feet by Christmas, thus limiting the time for ice yachting in that locality.

At Montreal skating, coasting, sliding, curling, tobogganing, and snow-shoeing are entered into with hearty zest by the inhabitants, while the winter carnivals attract visitors from every quarter. There is a heavy fall of snow and sharp winds, yet the air is usually dry and bracing; the summer is warm, though the temperature is seldom above 90 degrees. Vegetation in the spring develops rapidly, and the agricultural lands are prolific. Extensive tracts are covered by dense forests; lumbering is a great industry, large quantities of dressed lumber and square timber finding their way to Europe. Shipbuilding has fallen off, since iron has so largely taken the place of wood in the construction of vessels. The St. Lawrence fisheries are of great importance, yielding cod mackerel halibut haddock shad herrings white-fish lobsters and seals, while in the lakes and other rivers, besides some of these, are salmon trout and bass. At Tadousac is a government fish-breeding establishment yielding good results. On the banks of the Chaudière and elsewhere are gold copper iron and lead. The wagon roads are good in the settled districts.

Lumbering in the several localities where it is carried on gives rise to certain characteristics. In Canada the various provinces grant licenses to cut timber in the more remote forests. Shanties are set up for the men, and feed provided for the cattle to haul the logs to the streams. Small rafts are then constructed, and bound into one large raft, on which are several shanties, with earthen hearths on

which fires are burning; then with banners flying, with boat song and wild halloo, they float down the great rivers to their place of destination. In the coves above Quebec are the booms of the great Canadian timber merchants.

The province of Ontario, though somewhat distant from the gray nunnery ocean, is blest with a long enough water frontage, lakes Huron, St. Clair, Erie, Ontario, and Nipissing, Georgian and Nottawasaga bays, and the rivers Niagara, St. Lawrence, and Ottawa, all contributing thereto. The region is rich in agricultural lands and minerals, among the latter being iron near Lake Ontario and elsewhere, copper near Lake Huron, and silver, gold, and salt, marble and mica in various localities. Petroleum is plentiful in the western part of the province. Apples and pears are extensively raised; after these as important products are the peach plum and grape. All the grains are grown, likewise tobacco and sugar in places. Cattle raising and dairy farming are carried on extensively. Honey is an important article of commerce; the lumber trade is very large; among the manufactures are woolen and cotton goods, leather soap paper and hardware.

Toronto, capital of Ontario, and second largest city in Canada, has the usual government, parliament, and provincial and religious and educational buildings, among which are the King's college and observatory, university, Osgood hall where are the law courts, free library, and the insane asylum with its 700 occupants. Among the industries are furniture, stove, and shoe making, foundries, tanneries flour-mills and, breweries. Toronto has a fine sheltered bay on the shore of Ontario Lake, and opposite the mouth of Niagara River in the midst of a rich, agricultural district, thus enjoying every requisite of commerce and general prosperity.

One of the greatest and most beautiful pieces of engineering work in the world is the suspension bridge at Niagara Falls, the combined effort of Englishmen and Americans. The spot chosen was the narrowest between banks of any along the whole waterline from the lakes to the mouth of the St. Lawrence; and the river here is about as deep as it is broad, and rushing forward in such fury that no boat could carry across the first of the innumerable threads of which the structure was to be made.

Resort was thereupon had to kites; in air the bridge must hang when finished and in, air should it be woven, the very fine thread the kite carried over was able to draw after it a stronger one, which in turn could pull over a larger wire, and then another and another, until the rope thickened so that it would bear a man in a basket, and the roadway would sustain a loaded team, and finally trains of cars might safely cross; but care must be taken against vibration, against men marching in step, a child being thus able by repetition of regular motion to create more strain than the heaviest of traffic.

The province of New Brunswick, at St. Lawrence bay, has a flat marshy seaboard, fertile interior and forest-clad hills in the northwest. Quantities of lumber are floated down the rivers, and the smelt salmon, bass, lobster, and, trout fisheries are especially valuable. There are in this region large coal and iron deposits some, gold, besides copper, lead, antimony, zinc, and nickel. Metamorphic slates and Silurian rocks obtain in the north, Laurentian, Huronian, and Cambrian rocks in the south; in the west the Carboniferous and Devonian systems prevail, and elsewhere grow sandstones, trap, porphyry granite, shales, gneiss, and conglomerates. At Fredricton, the capital, the mean temperature is 42 degrees variations from with 35 degrees to 100 degrees. St. John is the chief commercial city.

Behind the rock-bound shores of Newfoundland are rolling hills, with an undulating plateau in the interior, where feed herds of reindeer. Lakes and ponds occupy no small portion of the surface, which

with rivers and bays make almost as much water as land. In the pine forests the trees attain a large growth. At Notre Dame bay copper mines are successfully worked. With the chilling influence of the Arctic current comes an enormous wealth of fishes, while the gulf stream renders the climate salubrious; mean temperature at St. Johns 41 degrees ranging from 7 degrees to 83 degrees; rainfall 58 inches. Chief among the indigenous animals are the caribou and reindeer, with their regular annual migrations to browse in the northeast during winter and enjoy the mountain air and grass in the northwest during summer. There are also the native bear and wolf, the fox and the beaver; in fact the island abounds in beasts and birds, while for fish, the place is in some respects nowhere else equaled. The cod comes first, of which there are annually taken in North American waters 3,700,000 quintals or 150,000,000 fish, worth $15,000,000. The time for cod-fishing is from June till October. The coming of the cod from the deep sea to the warmer waters of the seaboard for spawning purposes is heralded by shoals of the little caplin, which are good bait, as is also later the squid. Hook and line, seine, and other contrivances are used in cod-fishing, which employs 5,000 men and 1,800 boats. Notwithstanding the vast quantities taken during the past 380 years there appears to be no diminution in numbers. The seal-fishery, worth $1,000,000 a year, stands next to the cod in importance. Herring yield about $500,000 a year, and lobster $100,000. Agriculture on the island is subordinated to the fish interest. Cape Breton island, besides its fishery interests, has some metals, marble, and stone; coal and iron being abundant there are here good manufacturing facilities; the soil readily grows grain, and there is some ship-building.

St. Johns, the capital of Newfoundland, occupies a little niche in the iron-bound coast 1,640 miles from Ireland, and 1,000 miles nearer than New York to England.

A lighthouse, a dry-dock which will admit the largest ships, government house, colonial building containing government offices and legislative's halls the athenaeum with library, museum, and bank, iron foundries, machine-shops, tobacco, furniture, soap, oil, and other factories, fish-stores warehouses and wharves, with a little nest of shops, are among the leading features of the place. The site is hilly and stony, and the streets of the city are narrow. To dig a trench for pipes there must be blasting. The absence of trees and lawns adds to the aspect of barren desolation. But the people are by no means gloomy, and their hearty and hospitable speech and manner make ample amends for the imperfections of soil and climate. Speech has three distinct accentuations, English, Scotch, and native Newfoundlander. Having no use for a yard, the houses are built on the street line. Good roads lead hence to the coves by which the irregular coast is broken.

Prince Edward Island is a crescent of verdure in the gulf of St. Lawrence—"tight little isle," some call it, and again "garden of the gulf." The undulatory surface was once covered with a forest of fir, cedar, larch, hemlock, spruce, poplar, maple, birch, and beech. Smallest of the provinces, being 150 miles long and from five to thirty-five miles wide, it is nevertheless large enough to have in its capital of Charlottetown a government house and a governor. Its summer climate and scenery are those of southern England. The isle has had existence only since 1763, that is to say English existence; if anything was there before that date it was French or Indian and does not count. It was a fine fishing station in early times, and is now just as fine a farming country, though the whole of it would not make more than one good sized farm in the eyes of some people. Charlottetown has a large market ground and market building; the beautiful Queen's square gardens and adjacent elegant edifices; post office and provincial building; and the fine thoroughfare Victoria row.

The industries of Nova Scotia the Acadia of the French, are fisheries, which rank next in importance to those of Newfoundland; manufactures, which comprise cloth and sugar making, tanning and working in leather, and making furniture, agricultural implements woodenware, and wagons.

There are some 1,200 sawmills, besides grist-mills and various factories and there is some ship-building. Halifax, the capital of Nova Scotia, rests upon a hillside, above which is a strong citadel a mile in circumference. Among the buildings are the government house, somber-looking but solid, and the official residence of the lieutenant-governor of Nova Scotia; the provincial building, in which are the post-office, museum, and city library; admiralty house, courthouse, parliament, and exchange; the cathedral, asylums, houses Dalhousie and other colleges, houses of English bishop and catholic archbishop, not to mention the good harbor defenses and the lighthouse. Pictou exports coal and has a marine railway capable of taking vessels of 1,500 tons.

The peninsula of Labrador is a desolate tableland strewed with boulders covered with caribou moss, stunted spruce, birch, and aspen filling the ravines. The forbidding interior, with its rivers, lakes, and marshes, has been but partially explored, but on the rugged seaboard are some fishing stations, as Battle Harbor, where all men do not refuse to live and gather fish and furs. There are even politicians who will accept office in Labrador, preferring to rule Eskimos than serve Englishmen.

Nowhere in the world can be found so magnificent a system of navigable inland waters as we have in the great lakes and their outlet the river St. Lawrence. From the source of this system, the head waters of the St. Louis River which flows into Fond du Lac at the head of Lake Superior, to the mouth of the St. Lawrence is 2,100 miles. What a wealth of commerce is here afforded to the two great nations which border on either side of this great opening into the very heart of the continent! Then the rapids and waterfalls of this mighty flow, Saulte St. Mary and Niagara, the verdure clad banks and the thousands of beautiful islands and islets! Into Lake Superior alone 200 rivers pour their waters, the other lakes likewise having their feeders.

Lake Superior has a mean depth of 900 feet; Erie of only 90 feet; Huron and Michigan 700 feet and more. Where rapids and waterfalls occur in the connecting streams, as in St. Mary and Niagara, canals are dug through which ships may pass. All the accumulated waters above tumble over Niagara at the rate of 41,000,000 tons an hour, the fall meanwhile working its way up stream at the rate of one foot a year, which makes its journey from Queenstown to cover a period of 35,000 years.

The capital, Ottawa, the seat of the dominion government and residence of the governor-general is a city of hills skirted by waterways. Here also is the supreme court, and the catholic and protestant bishops. The government buildings are on Parliament hill, by which passes the Rideau Canal, separating the lower from the upper part of the town. Commerce centers in the district south of Parliament hill; east of the canal is Majors hill laid out as a park; beyond the Rideau River is the suburb of New Edinburgh, where is Rideau hall, the official residence of the governor-general. Another suburb of the capital is Hull, across the river, connection being by a suspension bridge. The parliament house is a fine specimen of Gothic architecture, of Potsdam sandstone, 470 feet long, with a middle tower 180 feet high, and cost $5,000,000. Ottawa has also a cathedral, nunnery, university, besides hospitals, convents, and the rest.

The Canadian northwest is a granary of not less than 100,000,000 acres, specially adapted to wheat growing, and with an outlet from North Saskatchewan. Edmonton, and Prince Albert, through

Hudson Bay to Europe, ample elevator facilities being placed at the principal ports upon the bay, this region will prove an important source of the world's food supply.

The work of the Canadian Pacific railway company was to connect Winnipeg with Kamloops lake, a distance of 1,920 miles, for which it received from the government $25,000,000 in money and 25,000,000 acres of land. By the purchase of other roads the company obtained in time a continuous line from the Atlantic to the Pacific, which with feeders finally reached 6,000 miles of railway. Steamers to Japan and China carried the traffic of the company across the Pacific.

Manitoba presents a somewhat monotonous surface of treeless plain, part of which is covered with a summer growth of exuberant vegetation. On the higher rolling lands and along the streams are some trees, aspen maple and willow being conspicuous. Certain fruits and berries are indigenous. The native prairie grasses grow luxuriantly and make good hay. Wheat is the principal crop; potatoes grow large. Winnipeg, the chief city, has quite a little commerce. A warm wind, called the Chinook is felt north of Montana and Idaho which so modifies the temperature as to make productive the soil, which in its virgin fertility yields readily forty bushels of wheat to the acre, and grows grass seven feet high.

In Ontario, Nova Scotia, Manitoba, British Columbia, and elsewhere are experimental farms conducted, under the auspices of the government, covering the departments of agriculture, horticulture, and arboriculture, which assist in the elevation and extension of these industries. Prince Edward Island has a government stock farm, in which shorthorn cattle and Southdown sheep play conspicuous parts.

The first Pacific coast voyages north, like the first voyages along the Atlantic coast of America, were made in the hope of finding a waterway through or around the continent. And as this Anian or other strait could not be found, and navigators disliked admitting failure, they began to set down in their charts an imaginary strait, and to swear they had seen it, or had even sailed through it. Following the voyages made by Espinosa in 1519 with the ships of Balboa to Nicoya, and which Nino continued in 1522 to Fonseca, or perhaps to Tehuantepec, were the explorations of the mariners of Cortes in the gulf of California in 1532-1536, the coastings of Cabrillo to Point Conception in 1542, the adventures of Drake, in 1579, who probably reached latitude 43, the voyage of Vizcaino, who with more careful scrutiny gained the same point in 1602, and the appearance of the Philippine treasure-ships by the northern route which struck the California coast above San Francisco bay. Henry Hudson entered the inland sea that bears his name in 1610. The Russians came down from Alaska and joined their discoveries to those of the Spaniards; Yankee traders and whalers appeared in these seas; English circumnavigators put in an appearance, and the discovery of the coast was complete. In evidence of the imaginary geography of those days are the still existing maps of Munster, 1545, showing a large strait in the north and an open sea beyond; Homem, 1558, in which the whole northern part of America is broken into islands with the open sea between; Ortelius, 1574, showing the land of Quivira, and near it the great strait of Anian; and even as late as 1768 Jefferys made a map which carries the broad strait of Fuca across the Rocky mountains to Hudson bay.

Meanwhile land journeys were made, by Cabeza de Vaca from Texas to Sonora in 1536, by Niza Coronado and Onate to New Mexico and Quivira, in 1539-1598, by Champlain to lakes Erie and Huron, by Nicolet in 1634 to Lake Michigan, by Hennepin and La Salle up and down the Mississippi in 1680-1682 as before mentioned. The Verendryes and others planted forts round lakes Winnipeg and Manitoba, and ascended the Missouri and Yellowstone, penetrating as far as Montana. Hearne

descended the Coppermine river in 1770; Mackenzie in 1789 explored to the Arctic Ocean the river which bears his name, and in 1793 crossed the mountains to the shore of the Pacific.

But before this last named memorable journey, the philosophic savage, Moncacht Ape, dwelling in the interior of the continent, ascended the Missouri river in the spring of 1746, and crossing to the head-waters of the Columbia, floated down that stream to the ocean. In 1766 Jonathan Carver made an excursion from Fort Michilimackinac to the head-waters of the Mississippi, and the land of the Docatahs, who told him of the shining mountains, the river of the west, an interoceanic strait, the mountains of bright stones, and many other things which were and were not. In 1805 Lewis and Clarke crossed from the Missouri to the Columbia, and following the track of Moncacht Ape to the ocean, returned the following year. In 1806 Pike came upon the peak in Colorado which bears his name, and Long made his camp at Council Bluffs in 1819. Meanwhile, during this same time, from 1797 to 1811, explorations by Scotch fur traders were being made in the far north and northwest, James Finlay on Peace River. McDougall at McLeod lake, Fraser and Stuart on the rivers, which bear their names, Thompson and Harmon in New Caledonia, Williams on the Yellowstone; and for further ocean voyages there were the expeditions of Winship and of Astor's men to the mouth of the Columbia, the ship Tonquin in Nootka Sound, and finally the establishing of Fort Vancouver, for the Northwest company, under the auspices of John McLoughlin.

The great traffic in pelts of the fur-bearing animals of northernmost America was quite different in different parts of the country, methods being regulated by time, place, and people. There were the fisherman and fur-takers of Newfoundland and the St. Lawrence, forming one class; the voyageurs and coureurs des bois of New France another class; and yet others, the great monopolists of the Hudson's Bay company and their fighting rivals of the Northwest company, the free trappers and traders of the United States, the seal-catchers of the northern seaboards and the maritime fur-trade of the Pacific.

In the commerce last mentioned the sea-otter was conspicuous, its home being in the waters of the Northwest Coast, Alaska, and the Siberian isles. Then there were the seal the sea-lion, and the numerous land animals which contributed to the comfort of man by giving him their skins and making large contributions to the wealth of the world. The existence of this wealth was first revealed to the eastern states and Europe by navigators like Juan Perez, Cook, La Perouse, and Russian explorers and American whalers. Vessels trading to California for hides often extended their voyages up the coast for furs. From 1741 the Russians crossed over from Siberia in their crazy craft, and gathering the products of their voyages in Kamchatkan ports, thence transported a part by land to Russia, and sent part to Kiakhta, on the frontier, where the furs were exchanged for Chinese goods, which were carried overland to Europe. Notwithstanding the distance, the trade was profitable, for the Chinese were extravagantly fond of furs, wealthy celestials paying cheerfully $500 or $1,000 for a suit of the coveted clothing.

Then in 1788 and subsequently came creeping up the coast Boston vessels, with a good supply of Yankee notions, glass beads, little looking-glasses, cheap knives, and other trinkets catching to the eye of the child-like savage, which they were willing to trade, giving what cost three cents for what would yield them three dollars. It was the old story of the Spanish dealings with the simple savage for gold repeated by the solid men of Boston in their dealings with the simple savage for furs. Men are much

alike in these matters whether Celt or Anglo-Saxon, auto-da-fe Jew-burning Catholics, or witch-burning and Quaker-hanging protestants.

The current of trade in the last years of the eighteenth century, from the New England coast to the northwest coast of America and China was mainly as follows; a New Bedford Salem, or, Boston craft would put in a cargo of trinkets, glass beads, cheap hardware, brilliant colored calico, plenty of rum and tobacco, and with these and like valuables would sail away around Cape Horn, and on until they came to a people whose eye their worthless trash would catch, when they would begin to peddle it out. The senoritas of South and Central America, Mexico, and California, loved colors in their adornments; hence they were glad to buy bright scarfs, dress goods, imitation jewelry, and the like and induce their husbands, fathers, and lovers to deal out liberally from their stores of hides and tallow in payment for the same. Or if this were too dirty a traffic, or too circumscribed for the advanced ideas, the ships might pass by these gross attractions, and proceed to the gathering of the softer goods of the north. There they would play back and forth between the coasts of Oregon and Alaska and the Hawaiian islands, trafficking in the summer in the colder latitudes and resting in the winter in the balmy airs of the south; finally, when this happy state of things had been going for two or three years, well laden with a rich cargo, the honest spoils of civilization, away would go the vessel to China, where a half civilized people stood ready to give the solid Boston man a good profit on his savage goods in half savage merchandise for his very civilized market.

I cannot do better here than to give a page out of my History of the Northwest Coast. "It is not possible from existing sources of information to form a statistical statement of the fur trade south of Alaska. It was carried on by individual adventurers or private companies; and only fragmentary reports of prices, profits, or quantities of furs obtained were incidentally made public in connection with special voyages. From 1785 to 1787, not including the operations of Meares, according to Dixon's statement 5,800 sea otter skins were sold in China for $160,700, an average price of not quite $30 each." Mr. Swan gives the total shipments of sea otter skins from the Northwest Coast in 1799-1802 as 48,500. "More than once, “said Sturgis, "have I known an outlay of $40,000 return over $150,000." Sixteen ships were on the coast in 1801, when 18,000 sea otter skins were obtained, one vessel in one instance securing 560 in half a day.

The Columbia River region afforded a vast field for furs, but California was rather too far south, although the free trappers and traders of the Rocky Mountains and the Sierra Nevada secured many packages of valuable pelts in those parts. The French, however, were the first great fur-hunters in America, and their history is the history of the fur-trade in New France. At the beginning of the last quarter of the sixteenth century French fisherman from Newfoundland ascended the St. Lawrence with trinkets to exchange for furs. Letters patent conveying exclusive rights were granted at various times by the sovereigns of France, first to Cartier, then to his nephews Noel and Chaton, and afterward to La Roche, Chauvin, and others.

After the colonization of Acadie early in the seventeenth century, missions were established by the Jesuits throughout the interior, forts built, and trading companies organized, each ever seeking to overthrow the others and maintain a monopoly. While Champlain was building a fort at Quebec, and making acquaintance with the Ottawas and Nipissings, Waymouth was trading with the natives of Maine, the Dutch were picking up skins along the Hudson, and John Smith was making up a company to trade for furs in New England. La Salle had a fur-trading at Lachine, near Montreal, and made

excursions to lakes Ontario and Erie previous to his notable voyages on the Mississippi. Among the companies in the field at this time, and later, were those of St. Malo and Rouen, the Cent Associes, West India Company, the Western company, and the attempted monopolies of Oudiette, Roddes, and others, whose voyageurs penetrated to the heart of the continent. In 1698 was formed the Santo Domingo association; the rich fur-dealer, Antoine Crozat, was French governor of Louisiana in 1712; and during the first half of the century, before the fall of Quebec, there were in the field the John Law Mississippi company, with 100,000,000 livres capital, the Senegal, Guinea, Chinese, and Canada companies.

The Russians likewise had their fur merchants and monopolies in Alaska and New York and St. Louis, controlled large areas, the Astor expeditions across the continent emanating from the former city; Laclede Maxan and company held sway at New Orleans, and from the fort of Auguste and Pierre Chouteau, standing where now stands St. Louis besides several, large companies having operations beyond the Rocky mountains hundreds of free trappers scattered themselves out over the prairies and into the forests, disputing with the red man over his prey.

But the greatest of all great fur companies was that chartered by Charles II in 1670 under the name of the Governor and Company of Adventurers of England trading into Hudson Bay and commonly called, the Hudson's Bay Company. First governor of this company was Prince Rupert and among its members, were dukes earls knights and gentlemen, while the domain over which extended their jurisdiction was not less than 1,000 by 2,000 miles in extent, being bounded by Hudson Bay and the Arctic and Pacific oceans. The £10,500 original stock was increased finally to about £2,000,000. They had forty posts, frequented by 80,000 Indians, whom as a rule they treated fairly, such a course being necessary to their trade. The 2,000 Scotch English and French officers and servants of the company comprised a governor, chief factors, chief traders, masters, and clerks of forts.

For a Iong time this monster monopoly held sway over a territory as large as all Europe. until there arose a fierce opposition in the Northwest company of Montreal, composed also of Scotch, French, and English traders, many of its members having formerly been in the service of the Hudson's Bay company. Inspired with the spirit of rivalry, the new associates pushed enterprise beyond the lake region to the Arctic and the Pacific oceans, engaging in frequent and fierce hand to hand fights with their brethren of the Hudson's Bay company, and not resting from their efforts until they had possession of the whole Northwest Coast with even Astor's men driven from the Columbia river. Their principal posts were Fort William in the east and Vancouver in the west. Michilimackinac remaining the headquarters of the Hudson's Bay company in the vicinity of the lakes.

A picture of Fort William in its palmy days, representative of a hundred other less important posts, revives m memory a great traffic forever passed away. In the center of some ten acres of ground enclosed in palisades stood the principal building of the fort, comprising caravansary and council-chamber, where were the spacious dining-hall and rooms of the officers. Surrounding the main building were storehouses and factories, where goods were sold and pelts bought and packed, besides many other smaller houses for the use of the servants of the company, clerks, mechanics, and boatmen. "Outside the stockade," and on either side of it, continuing the, description from the History of the Northwest Coast, "during the summer fortnight of business festivity were two encampments of three or four hundred men each, the one on the east side of the fort being the mangeurs de lard, or pork-eaters, comers and goers between Montreal and Fort William, and those on the west side the

hivernants, or winterers in the field." A banqueting scene is thus described. "It was the hour for dining, when, the sober business of the day accomplished, like old feudal barons the wintering partners, each surrounded by his retainers, had entered the great banqueting hall, there to meet the still more august magnates from the city, that the glories of the fortress shone resplendent. Running parallel down the hall were two large tables loaded with the combined products of forest and field, prepared by skilled cooks and served by experienced stewards from London. At the head of each table a proprietor-agent, the highest officer of the association, took his seat, and on either side partners, clerks, guides, and interpreters arranged themselves according to their several pretensions. The Montreal partners were nabobs richly attired, and with the surroundings, whether at home, en voyage, or at the rendezvous, of luxury and wealth. In the city they kept open house and entertained like lords, and in the field, though they should sleep upon the ground, they slept soundly, and were attended like monarchs." In 1821, the two companies having laid down their arms, a union was effected, the name Hudson's Bay company being retained to cover both associations. By act of parliament exclusive privileges were granted, which continued in force with certain changes until in 1859, the country being invaded by gold-seekers and settlers, the license of exclusive trade was not renewed, British Columbia was erected into a crown colony, and the great fur-company became a private trading corporation.

Gold was discovered on Eraser River in 1857, and history begins anew. The presence of the metal on Vancouver and Queen Charlotte islands, on the Keena and Thompson rivers, and elsewhere in British Columbia had long been known to the fur-traders, and the fact kept carefully concealed, lest their business should be ruined by inrushing adventurers. But prospectors from California and Oregon could not be prevented from quietly ascending the streams of the far northwest in pursuit of their particular game, nor when found could the inroads of diggers be checked. The only thing for government and the fur-company to do was to accept the situation and make the best of it, which after all was to prove a blessing to the country in hastening its settlement. About 300 ounces were obtained from the gold-fields in the latter part of 1857, and during the first three months of the year following 500 ounces more were brought in. As the news spread southward, and specimens were shown at Portland, San Francisco, the excitement ran high. Many thought the British Columbia mines would rival those of California and Australia, and a general rush, overland and by sea, set in for Fraser River. Victoria suddenly assumed metropolitan proportions, being filled with adventurers of every class, color, and nationality, fur-traders, gold-seekers, merchants, gamblers, preachers, and law-manipulators. Before the decline on Fraser River, important mines were discovered in the caribou country, and later in northern regions yet more remote.

Gold deposits on the tributaries of the Columbia and Fraser rivers were found in the beds and on the banks of the streams, the latter often rising in terraces to a considerable distance above and away from the water. Naturally the metal most easily obtained was first gathered, such as was found in crevices or lodged in the sand-bars which frequently are formed at the bend of the river. After this came the dry diggings of the gravel-beds and banks, where the dirt must be brought to the water or the water earned on to the ground many through ditches or otherwise.

The terrace deposits covered an area several thousand square miles, but in many places the metal was not present in paying quantities. In the dry diggings, as a rule, the gold was found in rather small particles, while that of the river bars consisted of fine flat scales. Yet in some districts this order of things was reversed, the coarse gold being found in the terraces, and the fine gold in the riverbeds.

The yield of the Fraser river mines the first year was about $2,000,000, falling off rapidly during the decade, and amounting in all to probably not more than $10,000,000, while the Caribou country and contiguous districts gave out during a period of twenty years some $30,000,000.

Valuable coal deposits were found at various places on or near the sea cost, the most important being at Nanaimo. At the mouth of Fraser river, where terminates the Canadian Pacific railway, is laid out on a vast scale the town of Vancouver, with suitable docks for the use of the trans-Pacific steamships. The custom house is at Victoria, the beautiful capital of British Columbia, while at Esquimalt are the government works, fortifications, naval station, dry-dock, and arsenal.

Miscellany

Cartier was thinking of gold and diamonds, rather than of a vast region of red men and wild animals, when he ascended the St. Lawrence to Hochelaga.

Newfoundland has a seacoast of 1,000 miles, and an area of 23,000,000 acres; New Brunswick 400 miles of seaboard and 22,000,000 acres: Nova Scotia 12,000,000 acres.

The estimated value of farms in Upper Canada, in 1865, was £60,000,000, live stock £9,000,000, timber, £2,000,000, total exports forest and farm produce £10,000,000.

In the olden time a skin was the unit of value, not a real but a theoretical skin. Doubtless this standard of currency was fixed when the Indian knew no difference between a beaver worth $3, and a silver fox worth $300. At all events this imaginary settled itself down to a currency value of about half a dollar, so that an average beaver was worth ten skins, a musk ox thirty skins, and so on, small change being made in muskrats, one-tenth of a skin, mink two skins, lynx four skins, wolverine sixteen skins.

Manitoba claims a yield of forty bushels to the acre in cereals of which the valley of the Mississippi will produce but fourteen bushels; indeed it has been said that cultivated, plants obtain their maximum of productiveness near the northern limit of their growth.

So great has become the cattle trade of Manitoba, that the firm of Gordon and Ironside sometimes gives the railway an order at one time for 1,000 cars for shipment to Montreal.

The $50,000,000 worth of Catholic Church property in Canada is not taxed by the government.

The St. Mary Canal, which connects lakes Superior and Huron, cost about $4,000,000, the lock measuring 900 by 60 feet, and 20 feet deep. It is said that more freight passes through this than through the Suez Canal, reaching sometimes 15,000,000 tons a year, in ships carrying each from 50,000 to 100,000 bushels of wheat.

The total mineral production of Canada is about $20,000,000 a year.

The estimate for the Canadian Pacific cable from Vancouver island to Australia and maintenance for three years was $10,000,000.

The Nova Scotia coal product is about 2,000,000 tons a year, of which Cape Breton contributes 1,225,000 tons Cumberland, 475,000 tons, and Pictou the remainder.

The freestone quays of Montreal cost $15,000,000.

Canada exports 100,000,000, pounds of cheese annually.

Canadian asbestos is produced to the value of $1,000,000 a year.

British Columbia has given out gold to the value of nearly $50,000,000.

The Canadian Pacific railway is an important factor in Canadian polotics, as well as in the development of the country.

Late developments of placer gold on the upper Yukon and its tributaries point toward the possibilities of vast wealth in the New Northwest. We have here the confluence, or perhaps the point of departure, of the three great chains, the Rocky Mountains the Cascade-Nevada range, and the Coast range, in all of which precious and base metals are profusely scattered; and the theory has been advanced by some that here in this frozen land beside a frozen sea the furnace fires once burned winch prepared and sent forth the metals on their course, all along the lines through North and South America to Tierra del Fuego.

The gold product of the world for 1896 has been estimated at $205,000,000, and for 1897, $240,000,000. Of this Canada gave $3,000,000 to the former and $10,000,000 to the latter year, $6,000,000 being brought in from the newly discovered mines of the Klondike country.

During the last quarter of the nineteenth century the gold product of the world may be fairly estimated at $4,000,000,000, while the probability for the output during the first quarter of the twentieth century is much greater. This enormous addition to the world's standard currency must necessarily affect values in no small degree.

Prior to the recent discoveries in the Yukon-Klondike region the Canadian mines gave to the world in gold, silver, copper, lead, iron, coal, gypsum, manganese, mineral oil, salt, slate, and stone values to the amount of $4,000,000 or $5,000,000.

Half the population of Canada are engaged in agriculture, who handle yearly 200,000,000 of bushels of products.

Half the surface of Canada is covered with forests from, which $30,000,000 worth of timber is exported annually. Conspicuous among the forest trees are white and red pine, ash, beech, elm maple, walnut, cedar, birch, and tamarack.

Revenue and expenditure of the dominion of Canada are about $40,000,000 annually.

Canada exports annually products to the amount of $100,000,000 and imports $120,000,000. From the fisheries come $20,000,000 a year, $8,000,000 of which are exported. To her magnificent natural waterways, the finest facilities are added to the transportation system of Canada in canals and railroads. Up from the ocean by the St. Lawrence and its lakes, aided by the Cornwall, Rideau Welland, and other canals the revenue from which reaches $400,000 annually, penetrating the interior farther by way of the great lakes and the lakes and rivers above and, well nigh half of the vast continent may be traversed by ships and boats.

The railroads connecting with and branching out from the water-system are fast covering the country, and leave little to be desired in the way of facilities for transportation in Canada.

Section Eight

Chapter the Twenty-Third: Pacific United States

Consuetudinis magna vis est.
—Cicero

Der Undank ist immer sine Art Schwiiche. Ich habe nie gesehen, dasz tuchtige Menschen waren undankbar gewesen.
—Goethe

En lontes compagnies il ya plus de folz que de sages, et la plus grande partie surmonte tousjours la meilleure.
—Rabelais

'Tis true we've money, th' only power
That all mankind falls down before.
Tho' love be all the world's pretence,
Money's the mythologic sense.
"I grant," quoth he, "wealth is a great
Provocative to amorous heat;
It is all philtres and high diet,
That makes love rampant, and to fly out;
'Tis beauty always in the flower.
That buds and blossoms at fourscore;
'Tis that by which the sun and moon,
At their own weapons are outdone;
That makes knight errant fall in trances,
And lay about 'em in romances;
'Tis virtue, wit, and worth, and all
That men divine and sacred call;
For what is worth in anything,
But so much money as 'twill bring?
Or what but riches is there known,
Which man can solely call his own,
In which no creature goes his half.
Unless it be to squint and laugh?
I do confess with goods and land,
I'd have a wife at second hand;
And such you are; not is't your person
My stomach's set so sharp and fierce on;
But 'tis (your better part) your riches,
That my enamour'd heart bewitches;
Let me your fortune but possess.
And settle your person how you please,
Or make it o'er in trust to th' devil.
You'll find me reasonable and civil."
—Hudibras

In the occupation and settlement of America by Europeans, it is interesting to note the character and motives of different persons in different places. Thus in the West Indies, and indeed throughout all Spanish America, the dominant idea was territorial proprietorship, land and enforced labor. When the Indians were proved inadequate, Africans were caught and made to serve as slaves. It was so in Virginia, as well. The Scotch and English in Canada wanted the natives to hunt and bring in furs; the puritans of New England preferred doing their own work, and desired no more furs than they could easily capture; so they permitted the gentle savage to exterminate himself. But everywhere the actuating impulse was the same, gain. And gain meant always one of two things, temporal advantage or spiritual advantage, the one taking the form of gold or its equivalent, the other of soul-saving for a price to be paid in the world to come. Gold and glory! Gold, signifying land and labor as well as precious metals, and glory meaning spiritual no less than temporal conquest. And where the heathen were concerned, the end always justified the means. The violent seizure of savage lands was not robbery, nor the killing of the inhabitants murder. If in the fight the invaders prevailed it was called victory; if the Indians, a massacre.

Every man to his trade, was the maxim in the new world as in the old, the soldier to kill, the priest to save, the viceroy or governor to ape royalty, and the husbandman to work himself or find slaves to work for him. Yet, though lands were the central idea in one place, and furs in another, and fish it may be in another, gold had ever its superlative glitter. There is its own peculiar charm in the yellow metal which fascinates. Hence it was, when the man Marshall picked up pieces of gold in the footrace which he was digging for Sutter's sawmill, all the world were ready to rush thither for some of it. Men have been gold crazy before and since, but there never was a craze like this craze.

Gold-lovers are always ready to brave the wilds of any Australia, or South Africa, or the hardships of Alaska; but the world was younger then by half a century; it was a long way from the centers of civilization to the west coast of America, and both money and nerve were necessary for the journey. These were not lacking either, and the year 1849 saw 500 ships at anchor in San Francisco bay, and 50,000 gold-diggers encamped along the Sierra foothills for 100 miles on either side of Coloma.

And so it came about that with a few centuries of pruning and polishing which is called evolution, are found at this day in some one or another of the several states of the American union, examples of the more advanced types of European civilization. Thus in New England is intellectual culture, in New York commerce, in the South chivalry, in Philadelphia family, in Chicago progress. All these communities had an individual beginning, while the social structure of the present West Coast regime had for its origin an intermixture of all these elements.

In the Oregon country the fur-hunter first appears to break the stillness of savagism; after him comes the missionary to convert and kill. In California the Spanish friar is first; next the Mexican ranchero, and then the gold hunter, the grain grower, and the fruit raiser. Into wild Alaska comes the wild Russian to capture seals; later the whole world, no less wild in its greed for gold, rushes thither for riches; for there they say is the home of all precious substances, the metals uniting in the union of the mountains. But before these were the mythologic prowlings along the coast of European world-encompassers, pirates for the most part seeking prey, and also if peradventure they might find a short cut through the continent to India. There being no such cut, according to the custom of the times, particularly of Spanish navigators, they set themselves inventing straits of Anian and open seas, lining the banks with hobgoblins, and filling the blank spaces on their maps with monsters and imaginary

cities. As these statements could not then be denied or verified for a century or so, lies regarding the Northwest Coast seemed to serve the purpose of navigators as well as the truth, such purpose being to set agape the wise men of the world, and lend importance to their discoveries. Or if inventions flagged, the same lies might serve for various places. Quivira, for example, and the Seven cities of Cibola being shifted all the way from Coronado's country beyond New Mexico to the strait of Juan de Fuca.

The Spaniards were a chivalrous race, and brave, and pious. Clad all in steel, with a sharp steel weapon, one of the conquistadores, particularly if mounted, was not afraid to meet in any number the naked savages who knew not steel and entertained a superstitious dread of horses; and so solicitous were the priest of souls, that they regarded lightly the vile body. The puritans, who were likewise brave and pious, fearing not to burn witches and hang Quakers for Christ's sake, cleared the land alike of forests and wild beasts and wild men, because they were all in the way. Colt's revolvers coming into use in California with the advent of gold, the miners, whose ever-present hip-ornaments were the gun and knife, delighted in shooting Diggers and Chinamen to keep in practice. These root-diggers the more refined cut-throats of Christendom would scarcely have deemed worth shooting, as they were very low in the scale of humanity, dwelling naked in brush huts, and eating grasshoppers and snakes when they could not have quail on toast or rabbit-pie. The Shoshones of Nevada, Idaho, and Montana were much the same. Nobler races were found in the north, as the Chinooks of the Columbia the Aleuts of Alaska, and the various tribes of the coast and the great interior. Their wealth was in skins and wives, and slaves; shells were their currency, while furs were used as money by the traders and their hunters, and mats, baskets, and abolones by the mission Indians of the two Californias and thence inland, as in the Portuguese possessions of Angolia. Now we have paper money, an invention of the Chinese, which is more convenient than the leather currency of some nations whether tanned or raw, and better than gold, inasmuch as it does not cost two dollars to print a one dollar bill. The Yakimas of Washington are but little behind their less dusky competitors in horticulture and agriculture.

The Navajos, who were assigned a reservation on the Colorado, cultivate their lands, raise herds of horses, cattle, sheep and goats, and weave cotton and wool, their best blankets selling from $80 to $150. The Pimas, of Arizona, live in towns of dome-shape earth-covered huts. They raise grain and cotton, make pottery and cloth, irrigate their fields, and have separate granaries. The Indian collection in Golden Gate park museum contains specimens from the Willamette and Columbia rivers, as well as from southern California.

As in Mexico, there are found remains in the valleys of the Mississippi and Missouri, and in Ohio of the works of a race anterior to any now living. This race may have become here extinct, or the unknown people may have proceeded southward through New Mexico and Arizona to the tableland of Anahuac, where long flourished the Nahua nations, the Aztecs, Toltecs and Chichimecs. The Pueblos, or townspeople, have some twenty of their several-storied communal houses in various parts, conspicuous among them being Taos, Isleta, Laguna, and Acoma. Here was the aboriginal civilization—some say, though there is no proof of it—whence the Aztecs sprung; in contact with a superior civilization they seem now to be relapsing into barbarism. Kindred to the Pueblos, yet differing from them in character and customs are the Moquis of Arizona, who live in cliff and cave villages surrounded by desert wastes. They are a people slightly superior, perhaps, to the Pueblos, making pottery and cloth, and pretending to some sort of decency. The houses of the Pueblos are of

religious as well as domestic character, propitiatory services to intangible powers mingling with the needs of today. Thus from out the mists of antiquity come to us through the mummeries of men and the mythologies of nations the fear and reverence humanity has ever held for the unseen.

The so-called precious metals and precious stones, than which there are fewer things on earth less precious, have ever first attracted the eager interest of discoverers and explorers of new lands. And since the surrounding Seas of Darkness first began to be penetrated by Mediterranean navigators, wherever a land not yet visited was heard of, it was sure to be reputed rich in all men most prized. So it was in California long before the Coloma discovery. Many said gold was there; some fancied so, others knew they were speaking falsely. Among the latter was Francis Fletcher, chaplain to Francis Drake who wrote in his book about the naked natives of wild, California, "they used to come shivering to us in their warme furres;" "there came a man of large body and goodly aspect, bearing the Septer or royall mace, whereupon hanged two crownes, a bigger and a lesse, with three chains of maruellous length;" “there is no part of the earth here to be taken up wherein there is not a reasonable quantity of gold and silver." This of Marin County, where no particle of either has ever been found. Venegas, Shelvocke, and many others reported gold in California who never saw it there, meaning Lower California.

Cabeza de Vaca told some wonderful stories of the country through which he passed from ocean to ocean, and Friar Marcos de Niza had yet others to tell; so that when Coronado with his fine following visited Arizona and New Mexico he was greatly disappointed, particularly in not finding the Seven cities of Cibola. Although natives were seen living in fixed habitations,—pueblos or towns they were called,—and cultivating the soil and making cloth, they had not troubled themselves much about metals, which abounded in certain parts, lead, copper, silver, gold placers, dry washings, and quartz, and some coal, mica, and turquoise.

When the Tombstone bonanzas and some other great deposits were exploited, Arizona came forward and put forth treasure to the amount of some $70,000,000. Besides, there was here and in New Mexico much wealth in raising stock, and some agriculture. New Mexico has given in precious metals about $30,000,000.

The purchase by the United States from Mexico of the California country, and from Russia of Alaska, were good bargains, although the former was the result of an iniquitous scheme on the part of certain of Polk s politicians for the extension of slave territory. Fictitious claims against Mexico amounting to some $12,000,000 were made out, and the note of war sounded in 1846. The cost of this war to the United States was 25,000 lives and $166,500,000; but to give some color of right to the transaction fifteen millions in money, and the assumption of three and a quarter million of claims, to which sum the original twelve millions shrunk under arbitration, was the principal paid by the United States, according to the treaty of Guadalupe Hidalgo, for the vast and invaluable territory extending from the Pacific seaboard of Alta California back to the mountains of Colorado. During the first decade following this transaction, California gold alone paid back the purchase money for the enforced sale five times over. A less brilliant, if more honorable, transaction was the Gadsden Purchase, which for $10,000,000 moved the boundary line south so as to give the United States a little more not altogether desirable land. The price paid for Alaska was $7,200,000, and between 1871 and 1883 $5,000,000 were returned to the government treasury for rent of the Prybilof islands and tax on seal-skins; and for one gold mine on Douglas island it is said that a French syndicate offered $14,000,000,

not to mention the many steamboat loads of the precious metals yet to be brought down from the Yukon-Klondike country, where somewhere about is situated the mother-mountain of all metals .

Mining embodies in its characteristics the development of mind no less than the development of metal. The California diggings,—likewise those of, Australia, Fraser river South Africa, and Alaska,—turned some supposedly good men into bad ones, some previously strong men into weak ones and some who were bad, or weak they made good and strong. Some of the best and subsequently wealthiest men worked in the mines with nothing, to begin with; among these in California being D. O. Mills, who now owns high buildings in the metropolitan cities on both sides of the continent; Lloyd Tevis, perhaps the shrewdest financier in San Francisco; J. B. Haggin, greatest in many things, land, mines, stocks, and horses; John W. Mackay, long counted a fifty million dollar man, with his postal telegraph and electric building in New York and property in California and Europe; Baldwin, Hayward, Hearst, Fair and a host of others. James G. Fair was born in Ireland in 1831 and died in San Francisco in 1894, leaving some $20,000,000 for his heirs and the lawyers to wrangle over for a full decade.

He arrived in California in 1850, and engaged in gravel mining in Butte County, then in quartz mining in Calaveras County, then to Nevada where in 1865 he became superintendent of the Ophir and Hale and Norcross mines. While at Virginia City he became associated with John W. Mackay, and with Flood and O Brien of San Francisco all of whom became very wealthy by the bonanza developments on the Comstock Lode. Herman Oelrichs, agent in New York for the German line of steamships, married the daughter of Mr. Fair.

One of the best pre-auriferous California historical authorities was Charles Wilkes, commander of the United States exploring expedition round the world in 1838-1842, who became conspicuous also in the civil war, notably by taking by force from the British steamer Trent the two commissioners of the confederate states Mason and Slidell, later released by the government. There were four prominent Hispano-Californians, M. G. Vallejo M and Juan B. Alvarado in the north, and Pio Pico and Juan Bandini in the south, and possibly the names of Castro and Arguello might be added. William G. Moorhead, who with Waddington and Whitehead was one of the first in San Francisco in the Chili flour trade, made a fortune and retired from business before he failed, thus escaping the fate of so many. Joseph A. Donohoe, who was associated with Eugene Kelly in the banking business of Donohoe Kelly and company, was most highly esteemed by his associates who, as was also Mr. Kelly, made many bequests in California as well as in New York.

Gold was discovered in January 1848. It was a year before the world awaked to the knowledge and realization of the fact that the foothills of the California sierra were strewed by the delectable metal, which might be gathered by the bucket-full; but when it did, what a scramble! From all along the coast, from Mexico and Central and South America, from Japan, China, and Australia, from the eastern shores of America, from Europe India and Africa; from all the world,—and had the tidings reached other worlds, from those also—came every kind of humanity, who however differing on other points were of one mind and heart in their adoration of this omnipotent and universal god. What was the result? The subtle influence was felt to the uttermost ends of the earth, in commerce, in manufactures, and in finance. The world of business was revolutionized, prices readjusted from a new point of view, and new phases of society developed. The land was free to all; it was even without law, so that the wicked might come, and some who were wicked did come, such as cut-throats from

Sydney, and professional and business gentlemen in tattered reputations from everywhere, but with good men enough to save the country. It was a garden spot of primeval wilderness whose gates were now opened to the entrance of human angels and human devils; for though the transfer from Mexico had been made, the United States government could not spread over the land its protecting wings until the question of human slavery in the new territory should be settled by the politicians at Washington.

Gold is found everywhere, scattered in fine or coarse dust throughout the earth, veined in quartz or diffused through solid rock, and associated with silver in the waters of the ocean—one grain of gold to every ton of seawater. But there is more gold on the western side of America than on the eastern, more in the Cascade-Nevada than in the Rocky range, though where these ranges come together, in Alaska, and tumble one over the other in wild confusion, some hold is the mother-mountain, the home of gold. Be that as it may, this frozen north-westernmost America, bought from Russia for a song and hitherto regarded as scarcely worth that, is just now drawing to it all the world, the gold-thirsty idiotic world, as appeared in the flush times of California. Why will not those thus doomed to death in the hyperborean gold-fields accept the advice given to Aesop's miser, who was told to put a stone in the place of the stolen lump of gold which he went every day to worship, and it would answer every purpose?

Sutter and Marshall were unique types, the one a refined and intelligent Swiss seeking solitude, the other a half-crazed ever-growling fanatic. There was nothing grand or chivalrous in the discovery; Sutter did not want gold, and Marshall could not help but find it. And if he had not, someone else would have soon made the discovery. Sutter from the first feared the effect of a gold discovery, with its influx of diggers to rob him of land and cattle; he preferred empire, leagues of Mexican land grants and dusky henchmen and retainers. Marshall loved gold, as much as he loved anything, and thought because of his exploit in the mill-race that all the gold of the Sierra should be his, with men to dig it for him. Finally, Sutter died and was buried. Marshall died, and as near the Kronburg fortress, formerly the castle of Helsingor, in Denmark, is shown the grave of Hamlet and Ophelia's brook, so even now is shown the tomb of Marshall with a marble finger, pointing toward the spot where was picked up that little piece of gold which so moved the world.

Samuel Brannan was a prominent figure in the early California gold-days. He was a Mormon preacher, and brought out a party of his people round Cape Horn in 1846, and set them at work, some in San Francisco, and some in the mines, religiously collecting tithes the while, not for the prophet Joseph but for the apostle Sam. In due time the elect saw through the little game and declared independence. "That's all right" said Sam, "and damned fools you were to pay it so long." Like Solomon of old, Brannan brought hewn stone from China and erected on Montgomery street temples to Mammon which stood high among the wooden shanties for many years; he likewise cultivated a watering place and called it Calistoga, the name Sam Brannan meanwhile being synonymous with all that was 'powerful rich.' But whiskey was finally king, whiskey and death, as is so often the case here and elsewhere.

"From nature's birth to Caesar's time" Ovid divides the period after chaos into the golden age, wherein was neither law nor prison, being, indeed, an age of reason rather than age of gold, while the teeming earth, all guiltless of the plough, gave forth her food. Under Jove the silver age appeared, in which was felt the influence of gold; and then the age of brass, and then of steel. California's golden age was not

her age of gold, nor was her lotus-land improved by cultivation. To make one white man happy, a thousand of God's happy creatures are slain; to give one Mexican his ten-league grant, a thousand rightful owners of the soil must move back, and back, and finally out of the world. California's history presents an age of grass, an age of gold, and an age of grain; and after all, ages upon ages of fruit and flowers. During the epoch of California pastoral, grass sufficed, green in winter, self-curing uncut for summer. Millions of cattle ate it, and men ate the cattle. California gold overturned established set all the world agog, values, and gave impetus to industry and commerce. Many new social and political problems arose and were wrought out. For the first time was seen a so-called civilized people without a government, then with too much government, unwritten law quickly appearing in both instances .

In those days the country was scarcely considered from an agricultural point of view. No one came to stay, but only to gather gold and return as with Alaska, at a later day. When the surface pickings of the precious metal were thinned, a year or two after the discovery, the cry was raised, “It is over; the game is played; this is no place to live in; let us away!" As for cultivating the soil, "I would not give six bits an acre for the best land in California for agricultural purposes,” said a senator on the floor of congress. But not all could get away; people must eat; and when it was seen how the green grass and the self-made hay fattened cattle that industry came to the front. Presently seed was sown, and in due time there was a large acreage in wheat and barley, which continued in the lead until the land became to be regarded as too valuable for grain, and so large tracts were devoted to fruit-trees and vines, which would be profitable were it not for the iron heel of railway monopoly to which the people too tamely submit. Far better for California had no overland railroad ever been built.

The mining region, gold in placers and in quartz, in sands and gravels, in river beds and hillsides, extended all the way from San Diego to Shasta and on, through Oregon, Washington, and British Columbia to Alaska, and back to the Rocky mountains. All the metals and all the minerals were here found in greater or less abundance. It is safe to say that in the precious metals alone California has given to the world $1,800,000,000. In regard to individual wealth, however, comparatively few reached the million point in mining, though many became rich in the manipulation of mines and in stock-gambling. A number of stock-raisers acquired wealth; certain railroad monopolists; some land speculators and city property holders, and a few merchants and bankers did well, but not many manufacturers or grain or fruit growers have as yet reached any high degree of prosperity. There were indeed rich pickings in places in 1848. At Hangtown, in July, were 300 men who got from three ounces to five pounds of gold daily to the man. At Knights ferry, with pick and knife alone each man gathered $200 or $300 a day. Some deserters from ships, of whom there were many, secured on Trinity River in a few days from $5,000 to $20,000 each. Five men obtained $75,000 on Feather River in three months. Two white men employed 1,000 Indians and got $50,000 from Weber creek. At Sonora, one man and two Indians gathered 45 ounces the first day. And so on along the whole line, more work being required to secure a given amount as the mines were overrun by new Marshall Monument comers. Chunks, or nuggets, were found in crevices or pockets or riverbeds varying in size from half an ounce to two or three hundred ounces. Gold in tin cans and pans and pots were left unguarded day and night in the miner’s huts. Pickle jars filled with gold-dust were stacked up in the hall of M. G. Vallejo's house at Sonoma like canned fruits at the grocer's. He was in the prime of glorious life, in those days, the Vallejo, caballero, general, and autocrat of the north, with thousands of native subjects and thousands of leagues of land to give away, yet dying poor, in debt,—all these frontier gentlemen of the Latin race were so improvident.

It was not until the year following that thieves came in and began to steal gold; it was hardly worth while at first; so long as it could be gathered so easily it were hardly wise risking one's neck for it. Besides, was it worth stealing? If in the foothills it lay so thickly scattered, how was it back in the mountains where all this gold came from? "Find the source, find the home of gold, and doubtless we can load ships from the mountains of it there." So thought soberly many persons, and gold suddenly assumed small value in their eyes.

Nevada does some stock-raising and farming, but is most noted for her great bonanza silver mines, which with others have yielded at least $400,000,000. To Oregon next after the fur-hunters came missionaries to convert the natives, and closely following them settlers to secure lands and save the country from the clutches of Great Britain. Land they got, good land and cheap enough, 640 acres being given to every man and wife. Probably some of the natives would have been converted had they not all died. Thus agriculture developed the first wealth in Oregon, after which came coal and gold. In the Umpqua country and on Rogue River gold was found in 1850, then on Scott, Trinity, and Klamath rivers, and the region round about. There were placer, gravel, and quartz mining, and some silver. Oregon has given to the world probably $40,000,000 in precious metals.

Among the noble men of the Northwest Coast, none were more noble than John McLoughlin, who ruled as chief factor first of the Northwest company, and then of the Hudson's Bay company, while Comcomly was king of the Chinooks at Astoria; later James Douglas was governor of British Columbia at Victoria. In Alaska, Bering deserves the first mention, as it was he who found the country for Russia. Chirikof next, as it was he who upon the death of Bering continued the work. Then the colonizer Shelikof, the monopolizer Lebedef, and the governor Baranof, the last the greatest of all,—at least in drink and blasphemy—and besides these there are no more.

The Northwest Company of Montreal were the first in the Oregon country, and after them the Hudson's Bay company held sway from the Columbia river to Alaska. Scores of posts were established, with hundreds of native hunters, and a great traffic was carried on, all in skins. Agriculture, mining, manufactures, or whatever tended to civilization and settlement were vigorously frowned down. Europe might surely have one great game preserve in America, kept undisturbed in all its primeval glories. And so it was until gold came, or rather the gold-finders, proving all-powerful above corporations and governments. Gold, as I have said, was the cause of the first disturbance of the fur-hunters; then developed coal, stock-raising, and agriculture, and with a railway across the continent the great northern end of America was open to civilized man. So virulent was the Fraser river mining excitement of 1858, that all the towns on the coast, San Francisco included, were nearly swept of their surface population, while business stagnated. The gold was fine, and it was found distributed in thin streaks of gravel and sand, and through the benches and terraces of the hills and valleys, running often far back from the river. In the Caribou country, later found near the source of the great rivers, the gold was coarser. The total output of gold up to 1898 was $65,000,000. Meanwhile, with the opening of the country to settlement, fisheries and manufactures rapidly developed. The fur business of Alaska was early monopolized by companies organized under the auspices of the Russian government, with capital stock of from 100,000 to 700,000 roubles each, as the Shelikof company, later the Shelikof-Golikof company; the United American company, and finally, into which all previously existing companies were merged, the Russian American company. Traffic under United States rule was opened by the Alaska Commercial company. Besides gold, besides seals and other furs, Alaska has much wealth in fisheries and timber, but little in agriculture. There are

good coal deposits, petroleum, copper, lead, and indeed all the metals. Placer and quartz gold mines have been worked, some with great success; also silver mines. One of the easiest and most notable is that of the Alaska Mill and Mining company, on Douglas island under the direction of John Treadwell.

Oregon and Washington have good agricultural lands, with forests, mines, and abundance of moisture. Idaho is less wet, and Alaska less warm; but both have vast mineral resources and the former, good grazing and farming lands. Many companies are engaged in canning the salmon catch on the Columbia Fraser, Stikeen, and Yukon rivers. According to the population Portland is one of the wealthiest cities in the United States, and Seattle and Tacoma are breeding their little nests of millionaires. The Ladd family is among the first and wealthiest in Portland, as are also the Corbetts, the Failings, the Dolphs, and a score of others.

Eureka! I have found it! As thus they cried in California in 1848 and on the Fraser, in 1858, so cried they in Alaska in 1898. The word itself is worshipped, let alone the god which it refers to, the Syracusian philosopher, Archimedes, saying Heureka! as he lay in his bath thinking how to detect a fraud perpetrated on Hiero by a craftsman who made the royal crown. Hiero had given a certain weight of gold to the man, who was suspected of mixing it with some other less precious metal. But how to know this was the question. On getting into his tub Archimedes noticed that the water overflowed the sides; in other words that his body displaced its bulk of water. Gold of course would do the same, and also silver. Notice the difference of water displaced by a pound of gold and a pound of silver, and heureka! You have it. How a philosopher looks running naked through the streets from his bath to the king's palace the Syracusians thereupon learned.

It is well understood that gold mines tend to impoverish rather than to enrich a country, from the fact that mining labor is in economic phraseology unproductive labor. Directly, mining labor adds no wealth to the community. The country is made worse instead of better by it. It exhausts rather than enriches. The miner leaves no mill or farm house or railroad in his track, but in their stead a ghastly skeleton of disfigured nature. True, the gold which he takes out will buy railroads, mills, and farms; but as a rule mining labor is not remunerative. It costs more to take the metal from the earth than it is worth when mined. As the maxims run, "it takes a mine to work a mine;" "every dollar in gold taken from the earth costs to get it two dollars;" and the like. Gold has been of benefit to California indirectly, to bring thither population which, failing as miners, must become husbandmen and manufacturers or die. In Alaska, there being no husbandry to fall back upon, failing golden gate park as miners, and unable to get away, they have only to die. They say the world is growing wiser, but looking at the Klondike craze, the craziest craze of all, one can scarcely think so. Neither the experience of fools nor the maxims regarding riches have much weight with the mass of money-getters. Nor is it altogether true what they teach; nor believed in nor acted upon by themselves; though Bacon was not far out of the way when he said: "Of great riches there is no real use, except it be in the distribution; the rest is but conceit." Solomon scarcely practiced what he preached, either in morals or money matters; nor do I know of anyone who has so done. Mining by the masses differs little from gambling, that fascinating but ruinous vice which is so common in mining districts, as well as in new countries where money flows freely.

In all the early mining camps of California and other mining slates, the most pretentious structure in the town, whether of cloth, wood or brick, was usually the gambling saloon, which at night was warmed and well lighted, and thronged with visitors. If the room was large, three rows of tables

covered with leather or green baize, on which were displayed heaps of gold and silver coin, nuggets and slugs, and bags of dust. There was in the game usually no limit; one might bet a dollar or twenty thousand, and the latter sum has been more than once staked in California on the turning of a card, while $100,000 has been won and lost at a single sitting. Faro, monte, roulette, and vingt-un, were the favorite California games, the fashion spreading thence to the mines of Montana and Alaska.

E. J. Baldwin, commonly called Lucky, has followed more kinds of business than any other man who made $18,000,000 in mines. Finally he became possessor of a San Francisco hotel and theater, a Lake Tahoe watering place, a Los Angeles fruit state university, Berkeley farm, and many other properties. W. C. Ralston was once the first financier on the Pacific coast, defaulting and suiciding at the last. James Lick brought with him to San Francisco some money, which he invested in real estate, and became worth $7,000,000, which he gave to different objects simply because he could not carry it away with him; he was in no sense a philanthropist, as he hated God and man. Magna servitus est magna fortuna. A great fortune is great slavery. Those lowest in the scale of money-getters find this maxim truest; those who hug to miserly hearts their ever-increasing accumulations until the burden becomes, indeed heavy to bear. To him alone who makes some good use of it are riches a blessing, some either for self or for use other than hoarding, posterity. "What shall I do with all this money?” burst forth Lick on his dying bed. Into the cold dark grave, to which narrow confines his belief restricted his hereafter he could not, carry it, and it broke his heart to part with it, most of all to do any one good with it. So the friend who sat by with pencil and paper distributed it, so much for a bath house, so much for a telescope; for the academy of science; for the pioneers; and then the man turned over and died, and the people praised him. For what do they praise him? What else could he have done? But Lick which is that came by his money honestly, much in his favor. Leland Stanford also died childless and gave to found a university the money which he with Mark Hopkins and the other railway monopolists wrung from the country to its almost utter ruin. A suit brought by the United States against the Stanford estate for the restitution of $15,237,000, being its proportion of the debt of the Central Pacific and other railroad corporations due to the United States was defeated. Some held that it was better to subordinate justice to policy, than disturb the financial relations of a large educational institution.

In the ethics of giving and receiving benefactions, too little attention is paid to the character of the giver and the sources of the gift. Perhaps it might appear prudish for a religious or educational institution to ask of one who brings an offering, "Who and are you, whence and how obtained you your gift?" The end sanctifies the means, they say; filthy money put to a good use becomes clean money. Yet there are those who deem it wrong to receive stolen goods; and there was once a man who stood upon the floor of congress and said in tones which range from the Atlantic to the Pacific "We do not want to educate our children with stolen money!"

Since Copernicus, four hundred years ago, settled the principles of astronomy, no aid to scientific study has made greater advance than the telescope. There are in the United States forty telescopes with apertures of from 7 to 15 inches in diameter. The telescope of the Van du Zee observatory, Buffalo NY, made by Henry Fitz, has an aperture of 16 inches; that of Warner observatory, Rochester, made by Alvin Clark, 16 inches; Dearborn observatory, Chicago, 18 ½ inches; Halstead observatory, Princeton, 23 inches; University of Virginia, 26 inches; Washington Naval observatory, 26 inches; Yale, 28 inches. All these are surpassed by the Lick and Lowe telescopes of California, and the Yerkes

of Chicago, the glass for the lenses for the last named being brought from Paris, and one of them five feet in diameter.

The world had seven wonders when it was no bigger than California; cannot California with seven wonders match the seven wonders of the Grecian world? Let us see. Yes, but with a difference; nature does our work, not slaves; building Egyptian pyramids in the Sierra, carrying a Rhodian colossus in the gorge of the Yosemite, raising a temple to Diana amid the grove-trees of Calaveras and a statue of Jupiter on Tamualpais, a mausoleum in the missions, with the hanging gardens of Los Angeles and the pharos of San Diego. In her 850 miles of seaboard California has but three harbors, but these are the best in the world.—San Francisco bay, 60 miles long; San Diego bay, 14 miles long; and Humboldt Bay, 14 miles long. Through the Golden Gate pass the united waters of the Sacramento and the San Joaquin, the two chief rivers of the great valley of California. There are 1,400,000 acres of redwood forests still uncut, and inexhaustible coast fisheries. The wealth of the state, which is 770 miles long, as ships sail, and 300 miles wide, is $1,500,000,000, being $1,000 per capita.

Upon a pinch these Pacific states could feed the world. Not a thousandth part of their resources has as yet been touched. All the animals and plants here flourish, except those belonging exclusively to torrid and frigid zones.

Side by side grow wheat corn and barley, and oranges lemons and figs; olives grapes and prunes, apricots nectarines and almonds. The California combined harvester and thresher cuts a swath from 16 to 50 feet wide, and throws out as many as 1,800 sacks of grain a day. Five ten-horse gang plows following each other will plow from 30 to 50 acres a day, which is frequently done in the valley of the San Joaquin. The Bidwell orchard of 98,000 acres at Chico is one of the largest, though there are 1,000 other large fruit farms. The San Diego Land and Town Company has 60,000 lemon trees; Los Gatos has 450 acres in prunes, and there is a fig orchard in Ventura County of 720 acres. The Stanford Vina vineyard comprises 3,500 acres. Much wine and brandy is made there, and though others may consume it to the support of the Stanford University, the students are not allowed to drink it on the premises. There is also a large brandy still at El Pinal, near Stockton. Fresno has one vineyard of 2,000 acres, and there are hundreds there and elsewhere of from 100 to 1,000 acres. Four beet sugar-mills crunch yearly 100,000 tons of beets, producing 26,000,000 pounds of sugar. Pests are common; but on the whole there are not so many here as elsewhere.

The skins of the jackrabbit, or hare, in America are not as good as are those of some other countries—at least, no good use of them is made. Australia sends 50,000,000 rabbit skins to England annually, one third of which go from England to New York for hatter's use principally. The best in commerce are the 5,000,000 skins sent from Russia every year. If left to breed they become a pest. For example, the damage they have caused in past years in Australia is $15,000,000, and in California, 55,000,000. The rabbit is not indigenous to Australia, but was introduced there from England. In California the farmers have occasional rabbit drives 2,000 horsemen, sometimes assembling and enclosing an area 20 miles square, and driving the gentle beasts into a pen and killing them by the scores, of thousands.

California and Nevada produce annually 10,000,000 pounds of borax, and send $2,000,000 worth of it to England. The dry climate here is favorable to this and like industries. The annual rainfall is heavy in the north, where the Japan current which sweeps round Bering strait first strikes the frozen mountains of Alaska, being 15 or 20 feet in places, but growing less as southward latitudes are reached until at the northern end of California the rainfall is 60 inches, while at the southern end it is

10 inches. In Lower California and, in Nevada and Arizona, it is in many places still less. Khassaya, India, had a rainfall in one year of 610 inches. Cherrapungi, S. W. Assam, had an average fall of rain for 15 years of 493 inches. Mining and agriculture are mostly carried on by Americans; manufactures by the Germans, with Chinese artisans; Hebrews of whom there are many wealthy and very respectable families, here as elsewhere, preferring trade.

To one of the wealthiest Jewish families of the east at the time Christ was born, belonged the Helenic philosopher Philo, of Alexandria. "Are not these laws." he says in his De Septenario, referring to the writings of Judaism, "worthy of reverence, teaching as they do the rich to give to the poor, who will not indeed be always poor, but receive their possession again, the widow orphan and disowned coming once again every seventh year into their wealth." Few regain their wealth in California, when once it is lost, even in the mines.

San Francisco had her Shylocks as well as old Venice, men with souls so steeped in avarice as to be scarcely human. At one time the city miser lived in a hut under the chaparral among the suburban sand-hills at, another time he appeared on Montgomery Street arrived in fine linen, and fattening on five percent a month. Yet in the main, I will say, that never was there a more free-handed and chivalrous community of money-getters than that thus brought together in the early days of California. Seldom was any close cash account kept in 1849, especially among acquaintances; the merchant would often take a bag of dust without weighing, or sweep a hat full of mixed coins into the till without counting. But Michael Reese, the money lender, counted his small coins, as well as his large mortgages. Nicholas Luning, like New York's Russell Sage, kept at his bankers the largest balance of ready cash of any one in town, and he knew how to make its power felt. Friedlander was king of grain, and Miller and Lux of cattle, the latter counting alike their herds and their acres by thousands. It was with difficulty that Alvinza Hayward obtained credit for a sack of flour and a side of bacon, which he carried out prospecting on his shoulder; when he was returned, the foundation of a fortune of several millions was laid. James C. Flood, with his partner O'Brien, at one time kept a saloon in San Francisco. One day a man to whom Flood gave a drink said, "buy Consolidated Virginia." Flood bought, and for a time was regarded the richest man on the coast. Desiring to be richer, he bought wheat, thinking to corner the world, but was himself cornered instead. This broke his heart, and he died, worth only a few millions, O Brien long before achieving celestial joys through champagne.

Isaac Lankershiem was rich and noble; he gave liberally, was open to every good and progressive work, yet hated iniquitous monopoly; had San Francisco been blessed with enough such men, the city would today be as large and prosperous as Chicago. Isaac Wormser was a conspicuous figure on Montgomery in early times. Thomas H. Blythe, keeper of a saloon and gambling shop, won from a man one night a lot on Market Street, worth at his death $5,000,000. Louis Sloss made some millions in the Alaska seal and fur trade. Joseph Macdonough married a sister of William S. O'Brien, and with the money his wife received at the death of O'Brien Macdonough made about a million. Among the earliest country residences were those of San Mateo, where lived the wealthy San Franciscans W. H. Howard, H. P. Bowie, Alvinza Hayward, John Parrott, and A. H. Payson. Cityward from this point many prominent men had places, W. C. Ralston at Belmont, L. Stanford at Palo Alto, and D. O. Mills at Millbrae.

Honest Harry Meiggs led a lively and adventurous life, beginning as contractor in Boston, then in New York in the lumber business making a fortune, and losing it in the crisis of 1837; in 1848 loading a vessel with lumber for San Francisco, where he sold it for twenty times its cost; building a wharf and sawmill on San Francisco bay, having at one time 500 men in the woods cutting trees and doing a rushing business,—meanwhile into everything as contractor, politician, educator, and the rest; finally off at sea for parts unknown, in a schooner said to carry $250,000 in money, its owner leaving unpaid debts of somewhere near a like amount, while all the city smiled a silly smile over the absurd pseudonym. Time passed by, and there came a rumor to California of an Honest Harry bridge-builder in Chili. Then in 1858 he made a contract with the Chilean government to complete the railroad from Valparaiso to Santiago in four years for $12,000 000. This he did in half of the agreed time, at a profit of $1,300,000. Next was the railway from Mallendo Arequipa, Peru, completed in 1871 at a large profit, of which he spent $200,000 in a dinner and, $550,000 for gold and silver medals which he distributed with a liberal hand. Having reached the summit of fortune and fame to which he who pursues honesty as the best policy ever attains, he contracted to build six railways in Peru for $125,000,000, and then asked forgiveness of the California legislature for his misdeeds, as he had repented while reveling in riches, and paid his debts, and wished to visit his old haunts before he died. But the lawmakers said no; such honesty as his could only be wiped out behind prison bars, and Harry felt that he possessed too many millions to enjoy that kind of life.

Among the many lawyers who acquired wealth manipulating Mexican land titles, it is pleasant to mention the name of Horace Carpentier, one of California's most able and respected men, and a citizen of Oakland.

How do all the people live? There are a thousand ways to do this and to make, money also, in and around a large progressive city, every article eaten worn or used requiring an army of producers; for example florists in and around Greater New York, numbering 500 and having employed half a million dollars capital. This business in blossoms so profitable on the eastern seaboard would scarcely find support on the western where nature is always, in bloom. The traffic in the United States, in roses and rhododendrons, in azaleas orchids and palms, and like sweet merchandise employs 25,000 persons and yields returns of $25,000,000 per annum. This labor and expense is for the most part saved to Californians, who may still have such a profusion of beautiful open air flowers as would put to blush the hot-house plants of colder climes. The garden city, San Jose, is buried in blossoms. Likewise in the Santa Clara valley are many beautiful residences, but most charming of all are the thousands of happy homes of moderate proportions. Standing conspicuous in San Jose are the courthouse and the state normal school, while at Santa Clara is the catholic college. Here and in the vicinity have from earliest times lived many wealthy families, as the Murphys, the Clarks, and the Campbells, Charles Lux and J. C. Johnson and Josiah Belden. Stockton stands for the San Joaquin valley, as does Sacramento for the Sacramento valley and state capital. Los Angeles has oil wells and many manufactories, besides a large fruit business. At Santa Cruz are the California powder works, long since established, where is made a high grade of smokeless and other powders. These works take rank with the Du Pont factories in Delaware, which are among the first in the world.

San Francisco comes first in manufactories, then Alameda, San Joaquin, and Santa Cruz counties in the order named. Like imperial Rome, the metropolitan city of the Pacific stands on seven hills, or more or less in number according as you count them. City and county, ground and government, are

one; the largest city and the smallest county in the state. There is a large Chinatown, and the hill of many nabobs, made such by mines, railways, and the happy faculty of inheritance.

But alas! where are the original great fellows? All gone, their millions scattered, their mansions of little use, being too large and luxurious to live in or to sell. Indeed, it is said of Searles, who inherited the Hopkins house that before the art association would receive it from him as a gift he was obliged to provide for the payment of the taxes. How few succeed and how many fail! How many in Paris, big trees, mariposa grove London, and New York who have been leaders on the exchange, rulers of markets, counting their wealth by millions, and yet who have died in a garret alone and in poverty! And of those who do not fail, but simply pass out of sight, their name is legion. Of the thousand business firms in California in 1849, not ten of them remain alive or unchanged to the end of the century. The city hall, that mill of the gods, still grinds, the building being the most imposing on the coast. Market Street, the broadest in the city, has on it some tall buildings, and property here is valuable, being worth $5,000 or $7,000 a front foot in places, as against $8,000 or $10,000 a foot in Chicago, and $12,000 to $15,000 in New York. The boulevard has become a necessary adjunct to all great cities, and to which a water view adds a great charm and value. Nature herein provides San Francisco an opportunity unsurpassed in the world; starting at the water front and skirting Telegraph hill, then on to the Golden Gate and along the ocean to and through the park, and back by the valley—a beyond the mission, drive as picturesque as New York's Riverside or Morningside with a marine, view as enchanting as any Bosphorus. The California academy of Natural Sciences was organized in 1853, and has from the first aided greatly in the development of the natural history of the Pacific coast.

Its usefulness was largely increased by the bequest of James Lick. Golden Gate Park, made from sand, is as pretty as New York Central Park, made from rocks. The cable railway was invented by A. S. Hallidie of San Francisco, and the first road built was over the steep grade of Clay street hill, in 1873; indeed, the first idea of it was as a hoist rather than as a haul.

Claus Spreckels became as the century was closing about the foremost man on the west coast, as he was both wealthy and public-spirited. He built the Valley railway from Stockton as a public benefaction rather than as an investment. His son, John D. has Spreckels, also wealthy and enterprising, large interests in San Diego. James Phelan is a man of wealth and political ability. Adolph Sutro constructed a tunnel to drain the Comstock mines, afterward establishing Sutro heights in San Francisco. Charles Crocker, of the overland railway, and his son and successor Charles F. Crocker, left, the former $40,000,000, and the latter $10,000,000. Woodward, of Woodward's garden, was prominent for his wealth and enterprise; as were also Samuel Merritt, A. J. Pope. Charles Main, William Dunphy, W. W. Hollister, Alexander Montgomery, H. M. Newhall, Annis Merrill, and Coggswell, who gave $1,000,000 to found a polytechnic school in San Francisco. Peter Donahue began as a blacksmith and ended in building a railway to Santa Rosa. James R. Keene was a prominent stock operator in San Francisco before going to New York. William Sharon made a fortune in Nevada, went to the United States senate, and completed the Palace hotel, begun by himself and Ralston, and which was ever his pride and the pride of the country. It is in itself a city of luxury, and in many respects the greatest hostelry in the United States or in the world. George Hearst made a large fortune in mines, and went to the United States senate.

Wheat was first grown in California at San Diego mission. Thence the culture, as well as that of corn and scores of other products, spread to other mission stations as they were established, and finally to the great ranchos, where indeed little grain was grown, immense herds finding ample pasture on native grasses, green, or cured by the sun without cutting. The beet-sugar industry was begun in California at Alvarado in 1880, the factories next in order being at Grand island and Norfolk, Nebraska; Lehi, Utah; Staunton, Virginia; and Watsonville and Chino, California; 20,000 acres being tributary and capital employed $2,000,000; cost of cultivation $500,000 for $900,000 worth of beets. Such at least are the reports. Oil and asphalt are found in plentiful quantity along and back of the coast from Santa Barbara and Los Angeles. Not to mention the minor sulfurous appearances, there are a thousand important mineral springs in western North America, like the California Geysers, Calistoga, Bartlett's, and the fifty others in Lake and indeed all the coast counties.

There is great wealth in the wine industry, the California annual product of 1,000,000,000 gallons constantly growing in favor. The dried fruit industry has likewise developed into large proportions, pears and prunes being conspicuous. Among the many examples of what California soil can do I will cite only two, the Calaveras Mariposa and Tuolumne trees, from 109 feet in circumference down, and southern California grape vines, one near Carpentaria being 7 feet 8 inches in circumference. Among other marvels may be mentioned a Yosemite water fall of a perpendicular half mile, a Death's valley 400 feet below the sea, plenty of natural bridges, and a dead river bed 60 miles long from which $250,000,000 in gold has been taken. Vines will grow anywhere in California, but between the kinds, quantity, and quality of grapes produced in the several sections there are differences. Thus in the Coast range, while all vines thrive there, the high and sparkling wine, raisin, and champagne grapes do best, while in the Sierra foothills those flourish which produce sherry port and burgundy. Missouri manufactures white and red wine. Champagne has been made in Ohio since 1850, Nicholas Longworth of Cincinnati being a promoter of the industry there. After that came to the front the lake regions of Central New York. The California raisin product is about 100,000,000 pounds.

Oregon, Washington, and Idaho have good fertile Puget Sound timber well-watered lands with all the minerals and metals, and noble rivers and forests. So with British Columbia and Alaska; besides their vast mineral resources and seal fisheries, the rivers and sea swarm with food-fishes. Salmon in the south and white fish in the north, and along the coast oceans of herring. Canneries are established on all the large streams where salmon abound. Within two miles of the sea-coast in Alaska is a lake of petroleum, five miles long by three miles wide, and of unknown depth. Thereabout is coal in abundance, and asphalt.

He who records the successes of life has a small task indeed as compared with him who tells of reverses. A rough rollicking hard selfish man, but with perhaps some latent or unknown good qualities, was Ben Holliday sometime overland, stage proprietor, and later living in imperious and lordly state in Portland, finally to fall under an avalanche of his own greatness. A far better man was Henry W. Corbit, who, coming to Oregon with nothing, acquired with wealth high social and political distinction. William W Stewart, mining lawyer, was long conspicuous as the wealthy senator from Nevada. John P. Jones was another rich Nevada senator, who made his money in mines. It is not always and every where that money can buy a seat in the United States senate but as a rule it can do so. When you see in congress a rich politician of little or no ability, who is neither a statesman nor an orator, who is not an educated and certainly not an honest man, you may be pretty sure it was his money that placed him there.

Arizona is a land of mountain terraces, arid plains, and canyons, with oases of meadows fruits and flowers wherever water appears. There are minerals in abundance and alternating with, lava-beds and cones of volcanic cinder are natural parks and pine forests. Prescott and Phoenix are distributing points to the country around, particularly the copper mines. On the eastern side, near the pueblo Juni, is a salt lake, three miles across. So transparent is the hot palpitating air of the desert that it deludes the eye and fills the mind with mirage, all nature at times taking on forms fantastic and delighting in deceit. There are present wells of water, but no lakes; and for rivers, the Colorado itself, until better cleared, is not worth much for navigation, even aside from the Grand Canyon fissure, which is a series of chasms 300 miles in length and a mile deep. Agricultural lands are limited, though if water be poured out on the desert it is productive. Timber lands are still less abundant, but there are wider areas of grazing lands. The wealth of Arizona is in her minerals and metals, which seem to impregnate the entire country. There are 2,000 acres of petrified forests, in which huge trunks ten feet in diameter are thrown about as in a logging camp, and showing, where broken by natural or human agency, mosaics of onyx and amethyst, of jasper topaz carnelian and agate. In the Coast range of California near the geysers is a petrified forest, but without the beautiful stones found in Arizona.

Artesian wells began to be sunk in Santa Clara County, California, about the middle of the century, many being subsequently bored in all the central and southern districts, as well as in Nevada and the states adjacent. There is a remarkable artesian belt in San Bernardino County, where hundreds of wells from 100 to 300 feet deep pour forth perpetually their verdure- clothing streams. In the rivers of the Coast range, and along the Sierra foothills, is power for hundreds of machinery plants. The horsepower of rain is limitless, and there are natural watersheds and places for storage in the mountains of western America to furnish power to move the world. The rain-fall thus caught midway between the clouds and the ocean is made to turn many of the wheels of civilization on its level-seeking course, and manufacture lightning on its way to spread with fresh verdure the plains below. Likewise in the harnessing of the tides may be the utilization of great power, for which purpose several machines have been invented, one in California. During the 25 years electrical power has been in use, $1,000,000,000 have been invested in electrical machinery.

Mighty indeed are the powers that be, and mighty the power of man, whether overthrowing or overthrown, and death mightiest of all! Standing here upon the borderline between the latest west and the old east, on the line where west meets east, the old half civilizations of Asia either briskly astir or falling in pieces by their own weight; standing likewise between two centuries, wherein has been and will be more of progress than in any of the half-score of the past or the future, it is not difficult to prophesy, nor unsafe withal as to what will be a century hence. New York and Chicago then will each have a population of ten millions, San Francisco five million, and San Diego one million. Broadway will have all high buildings with elevated sidewalks and cross bridges above the tenth story. East and North rivers will have each three bridges and three tunnels. There will be seen no horses in the streets. Ship canals from lakes Erie Michigan and Superior to the rivers Hudson and Mississippi will bring the vast interior to the sea, while ocean navigation will cross the continent at Panama and Nicaragua. Attached to every public schoolhouse will be a first-class hotel and clothing shop, where pupils will receive every requirement free, capital from the county bank being given them to engage in business upon the completion of their education. Negroes and Irish policemen will run the government at reduced rates. As men have been occupied largely during the past century in studying

the forces of nature and applying them to their requirements, so they will continue discovering and inventing through the next, until the end of it will find wonders heaped upon wonders.

It is a day of great and small inventions,—horseless carriages and bicycles propelled by petroleum; electrical and hot air railway cars, telephone talking, with no end of clubs, coming women and the rest. Certain very able men and, very good men doubtless at heart, if peradventure such an organ can be found, are perhaps a little greedy for gold, and with their trusts and corners, and monopolies here and impositions there, crushing mercilessly the life out of any and all who oppose them under the Juggernaut-wheels of their avarice, inclined to more than their share, if they can get it. But we must not quarrel with the way in which a kind providence has put up things. These men are as God made them, only, as Sancho Panza says, a little worse.

The past half-century has been conspicuous in this respect, in common with others,—that wealth has increased in as great or greater ratio than population. And we may confidently look forward for a continuance of the same state of things for another half-century. There are yet forests to be cleared away, orchards and vineyards to be planted, houses to be built, canals and railroads to be constructed, and many other industries to be extended which add fixed and permanent value to the land. Setting aside from our eighty millions of population the non-producers, children, women, professional men and the rest, and we have at least ten millions of men whose day's labor leaves a permanent result. If this result is estimated at a dollar a day, then the increase of wealth in the United States, from this source alone, is not less than 3,000 millions of money, equal to the entire circulation of the globe.

Happy is he who on entering the world chooses for himself beneficent and wealthy father, and so inherits all the good things of life without the trouble of lifting a finger for them. Yet some would say that he who lives alone for self, lives for the least of God's creatures; that he who has no other ambition while in this world than to spend the money another has earned, which life indeed is the life of the swine who eat sleep and sun themselves, is not to be envied. And the idle rich of America are more unhappy than the idle rich of Europe, where centuries of practice have brought the art of doing nothing to a state of greater perfection. Some would say, likewise, that the super-sensitive or self-sufficient woman of too much learning, or the appearance of it, might better come clown from her stilts, and deal more in pretty and pleasing things.

For example, with a straining at logic for which the female mind is conspicuous, particularly where her interests or prejudices are involved, sentiments intended to appear ultra humane are poured forth against the killing of birds for their ornamental feathers. This is well. If all birds and all animals were protected against the cruelty and rapacity of man it would be still better. The point here is whether it is more inhumane to kill a bird for its two wings to decorate a hat, than for its breasts to furnish a mouthful of delicate food to a fat gourmand. "But all must eat," says the whale, as he swallows a thousand fishes for a breakfast. True, but were it not better to feed on swine than on birds of sweet song or bright plumage.

Though royalty is not held in as high esteem as formerly, money is still a power. Some exalt learning, some worship their dead ancestors, but love of learning and love of ancestry alike may reach the ridiculous. Gold, however, is always worshipped; and though religion and learning may sneer, they bow down before the yellow calf all the same. Some would have it in one breath that it is right to steal China from the Chinese, and that war is to cease even though they have to fight any who hold to the contrary. Some write profusely about a twentieth century outlook, who can see no further beyond

their nose than is vouchsafed to the generality of mankind. The world for the most part takes its own course, and man follows along behind.

The Nicaragua Canal will be finished early in the century, saving a voyage round Cape Horn of some 6,000 or 7,000 miles, or an expensive railway haul of 2,000 or 3 000 miles. China, will awaken to the herald notes of progress, or become dismembered by the European powers. And as the Pacific becomes more and more alive to traffic and trans-oceanic intercourse, all the states and seaports from Alaska to Patagonia will benefit by it. The growing greatness of the Pacific, which is inevitable, may be better understood when we consider that here is one of the world's chief sources of lumber supply, one of the world's great gold, grain, and fruit producing regions, a climate unequalled on earth, a land whose resources have as yet scarcely been touched. And in the throes of an universal unrest will be brought forth a higher intelligence, a nobler manhood, and yet more stupendous wealth.

While The Book of Wealth has been in course of publication, a change has come over the nation, brought about primarily by the war with Spain. By that war the commonwealth was baptized into a new and higher civilization. More especially was this change destined to affect the great South sea of Vasco Nunez, which was indeed to become a New Pacific, with the Anglo-Saxon race forever dominant.

Following the war, new life was given to the western shore of the United States. New lines of steamships arose at Tacoma and Seattle, at San Francisco and San Diego, and before the year 1899 had closed, there was scarcely a port of any considerable importance in or around the entire Pacific arena, islands or mainland, which had not steamship and sail communication with the rest of the world, and many of them railways coastwise and across continent. Commerce sprang up between points where it had never before existed, and traffic at the old marts was several times increased.

Nor was it so much the active development which took place at the time as the enlargement of ideas, which gave the richest promise in regard to the future. Already, before the naval battle at Manila bay, great changes had occurred. The better to realize the transformation, we have only to glance backward toward the early part of the century, when for the most part the ports of China were closed to commerce, and Japan was still enfolded in the clouds of barbarism. The Philippines were held in the merciless grasp of Spain, with South intercourse at intervals with Mexico and India, while the Australias were still occupied by the Bushmen. America held some slight intercourse with Europe, and the trade of Boston with California and the Northwest Coast consisted mainly in hides and furs. Such a thing as steam navigation upon this broad expanse of waters was not dreamed of until sometime in the forties or thereabout, when the Hudson's bay company got out from England two scrubby craft of the tug-boat type, called the Beaver and the Otter, to ply along shore between the company's posts on the lower Columbia and the lower Fraser and Fort Simpson. And the century had more than half of it come and gone before a steam railway appeared, that across the isthmus of Panama beginning operations in 1852, and the Folsom and Sacramento, the first in California, some eight or ten years later.

The end of the century marks the general occupation of the tropics by Europeans. There are problems yet to be solved concerning these lands, as the kind of labor best to be employed, and the kind of society best to be established. The discussion is usually conducted on the hypothesis that it is possible for white men to live and labor under or near the equator, and to establish there homes and institutions, after the manner of those of old England, or of New England; but even if this could be

done, it is not difficult to say what the result would be, that the race if it did not die would deteriorate, if for no other reason than that the climate makes for inactivity and inertness weakening to body and mind. A slight infection of civilization is enough, sometimes, to destroy multitudes of savages, particularly in hot climates, where clothing of any kind, to body or mind, is an infliction. It took but a small body of merchants, missionaries, and sailors to clear the Hawaiian islands of their original 300,000 inhabitants, or at least to reduce them to one tenth of their original number; so that of late years Japanese and Chinese had to be brought in to do the work on the plantations, the latter, on annexation of the islands, being denied further admission owing to the foolish fanaticism of the laboring class, aided by demagogues and that part of the public press which panders to whatever is popular, without regard to right or fairness, through whose influence the best tropical laborers the world affords are excluded from our shores. Since the acquisition of tropical lands of our own, the folly on the part of the United States government of excluding the Chinese becomes apparent, even to the most stupid. A continuance of the exclusion policy will at once drive cotton and other industries from America to Asia, and leave our tropical lands without those laborers which alone can make them profitable.

Our new possessions near the coast of Asia bring with them several problems, but concerning none of which we need feel alarm. As it seemed to some a hundred years ago, or fifty years, when the United States began and continued the expansion policy which extended our domain from the English plantations on the Atlantic seaboard to the Pacific ocean, adding first the middle northwest, then Louisiana and Florida, and finally Oregon and California, the acquisition of tropical islands they feared would bring only loss and trouble, and an imperial policy which if continued would end in destruction. I see nothing to be frightened about, however. It will do no harm to spend a little of the public money on the islands and shores of the Pacific, rather than to have it all go to politicians and pensioners, even though it costs us $10,000 to kill a Filipino, which is about a thousand times more than the average expense of military slaughter in Europe, at the wholesale rate, the estimate based upon the statistics of the past century. What the people of the United States need now, even more than Filipino carcasses, though that of Aguinaldo might be worth a good price, is the expenditure of a few hundred millions in the reclamation of arid lands, and bridging the great American desert with one or two trunk lines of railways, which would bring into nearer relationship, commercially and politically, the two sides of the country.

On 1200 of the Philippine islands there are seventy tribes belonging to six distinct races, though ethnological differentiation is here difficult. In wealth and intelligence the Tagals and Visayans are the most highly favored, some of whom may fairly be placed in the category of civilized, while at the other extreme are the beastly Negritos, the true remaining aboriginal, the fierce Malays, and the bloodthirsty Igorrotes. Chinese indications are seen everywhere, just as among the natives of Mexico, Central, and South America, Spanish blood is seen. And as in Spanish America, so in Asia, owing to the interminable intermixture of scores of peoples on these islands and the mainland adjacent, there has become conspicuous a mongrel type which partakes of all tribes and races. On Mindanao and the Sulu archipelago are the Moros, who came originally from Borneo.

On some of the islands are savages of as low a quality as can be found anywhere, who on the approach of the poor civilization to which these islands are destined, will disappear of their own accord. The advice to the United States, of Li Hung Chang, though never asked, was, “Sell the Philippines." Li is a wise Chmaman, but his wisdom is the wisdom of Mencius and Confucius, the wisdom of old China,

and not the wisdom of the New Pacific. In olden times, when pests became too troublesome, as coyotes, or rabbits, the people would come together and have a drive at them, cleaning them out. If a grand picnic for the isles of Asia could be got up in the United States, which would result in the smoking out of the bush-hiding Filipinos, and the strangulation of their leaders, the pest would be practically exterminated. Doubtless some of the prosperity enjoyed at present by the United States and the New Pacific, is due to recent events; but even before the war there were at hand unmistakable signs of great material advancement in the industrialism of this whole region. Says a late English writer on this subject: "In the past three years American institutions have undergone an all-round process of sudden and mysterious enlargement. Territorially the union has expanded, and in a still greater degree have the minds of the people. The nation as a whole has kept pace with the unexampled growth of its commerce and its industry. It has adopted broader views of its position in the world, and its relations to other states. The term 'expansion,' now so frequently in its mouth, has acquired a higher meaning than formerly. Previous to the war with Spain, the only expansion which the Americans understood or cared about was commercial. They wished to have nothing to do with other states except in the way of trade. But their sudden conversion into a colonial power has given a new stimulus to their industrial energy. It has kindled a higher ambition among them to measure themselves against the rest of the world, politically as well as industrially. So far from interfering with their commercial emulation, the imperialist sentiment seems to have quickened and strengthened it. Their keen eye to business has shown them that the war with Spain was a capital advertisement for them. It called the attention of the world to the superabundance of their resources, and to the wonderful elasticity of their organization. In the conduct of the campaign they may have sometimes owed more to luck than to skill, but in command of men and material they were marvelous. In rapidity of production they distanced all competitors, even the oldest and wealthiest; and this not by a fluke, but in a variety of hard fought tests. In 1896 a semi-famine in Europe gave the states an opportunity to show what they could do in the way of food growing and distribution. Their wheat crop that year, though under average, formed 20 percent of the whole world's yield. Next year they increased their production by one hundred million bushels, and their proportion of the whole to 22 percent. Wheat being still comparatively dear, they made another effort in 1898, and achieved a further increase of from sixty to eighty million bushels. This raised their share of the whole world's crop to 25 percent, which, needless to say, outdistances that of any other wheat producer. The extra supply of wheat raised by the Americans in these two years would very nearly cover the consumption of the entire United Kingdom. No other country could so promptly have taken advantage of the emergency caused by the almost universal failure of the wheat crop outside of the states. If any other country—Russia, for example, or Argentina—could have raised an additional two hundred million bushels, how could it have been shipped in time to Europe? Neither Russia nor Argentina has the elevators, the railroads, the lake steamers and the shipping ports which enable the Americans to move grain from Duluth to Liverpool for less than our own railways charge for carrying it from Liverpool to Leicester. The cost of growing wheat is only one factor in the problem which the Americans are solving so successfully—of how the new world is to feed the old. No less important are the railroads, with which the western states are now grid ironed, the rolling stock, beside which our own is quite out of date, and the ubiquitous agencies that exist for collecting grain, grading it and hurrying it through to the seaboard in train loads of three or four hundred tons each. The financing of the crop requires a most extensive ramification of local bankers and grain-brokers, who have all to be bright men if they mean to fulfill their first duty as Americans and 'get on top'. The elevator companies, who store grain at the railway centers, whence it can be shipped east at an hour's notice, are indispensable wheels in

the machine. Even the speculators in the wheat pit, who buy and sell 'futures,' have their legitimate use. Their dealings create a free market for grain such as exists nowhere else. Through them millions of bushels can be bought or sold any morning. Orders which might take days to execute at Liverpool or Mark Lane are the work of a moment in Chicago. In the case of a foreign purchase, the grain can be on the way to the port of shipment the same night. So on all the way through, in every branch of the wheat business, from growing it to making markets for it, the American is facile princeps. He handles millions of bushels where European dealers seldom get beyond thousands, and his methods are proportionately massive."

In international trade the huge geographical area of the United States must give the Americans a great advantage over European competitors. If there were nothing else, this might often turn the scale in their favor. But add to it a system of transportation unequaled for efficiency and cheapness, a commercial machinery which is being continually driven at high pressure, the fact that a large proportion of the American intellect is devoted entirely to business, and the other fact that, from storekeepers to ironmasters, all are possessed with a consuming ambition to be the biggest of their kind. Remember, too, the immense variety of natural wealth providence has heaped on the country. Its coal and iron mines are as marvelous in their way as its timber forests and wheat fields. During the present decade they have undergone enormous development, and today the mineral output of the states, taken altogether, leads the world. In metal work and machinery of the highest class even England seems no longer to hold her own. She has been slow compared with the Americans to adopt improvements, enlarge her workshops and plant, and to extend her operations.

Chapter the Twenty-Fourth: Rocky Mountain States

Get place and wealth, if possible with grace;
If not, by any means get wealth and place.
—Pope

The rule, get money, still get money, boy
No matter by what means.
—Ben Jonson

And hence one master passion in the breast,
Like Aaron's serpent swallows up the rest.
Riches, like insects, when conceal'd they lie,
Wait but for wings and in their season fly.
Wealth in the gross is death, but life diffus'd.
As poison heals, in just proportion us'd;
In heaps, like ambergris, a stink it lies,
But well dispersed, is incense to the skies.
'Tis strange the miser should his cares employ
To gain those riches he can ne'er enjoy;
Is it less strange the prodigal should waste
His wealth to purchase what he ne'er can taste?
—Pope

So for a good old-gentlemanly vice,
I think I must take up with avarice.
—Byron

Why call the miser miserable? as
I said before; the frugal life is his
Which in a saint or cynic ever was
The theme of praise; a hermit would not miss
Canonization for the self-same cause—
And wherefore blame gaunt wealth's austerities!
Because, you'll say, naught calls for such a trial;
Then there's more merit in his self-denial.
—Byron

Can gold calm passion, or make reason shine?
Can we dig peace, or wisdom, from the mine?
Wisdom to gold prefer; for 'tis much less
To make our fortune than our happiness.
—Young

Judges and senates have been bought for gold;
Esteem and love were never to be sold.
O cursed lust of gold! when for thy sake
The fool throws up his interest in both worlds;
First starved in this,then damn'd in that to come!
—Blair

Trade it may help society extend
But lures the pirate, and corrupts the friend;
It raises armies in a nation's aid,
But bribes a senate, and the land's betray'd.
Fight thou with shafts of silver, and o'ercome
When no force else can get the masterdom.
—Herrock

That I might live alone once with my gold!
O, 'tis a sweet companion! kind and true;
A man may trust it when his father cheats him,
Brother or friend or wife. O wondrous pelf
That which makes all men false is true itself.
—Ben Jonson

"Nous seuls rendons les jours heureux ou malheureux.
Quitte un vain prejudge, I'ouvrage de nos pretres,
Qu' a nos peuples grossiers out transmis nos ancetres."
—Voltaire

Les hommes n'ayant pu gurrir la mort, la misre,
V ignorance, se sont avises, pour se rendre heureux. de
ne point y penser.
—Pascal

Though the natural resources were great, there was but little possession three hundred years ago where are now the United States. There were metals in the mountains, and the rich soil of the valleys; vast forests, and beds of coal and iron and deposits of petroleum; wild fruits, wild animals, and wild men, the last the least valuable of all as property, or producers, or available means of wealth. Soil for the most part fertile covered the land, except the arid interior lying between the two great continental ranges, the Nevada-Cascade and the Rocky mountains. Lakes and rivers were conveniently placed, notably he great lakes upon the northern border, and the Mississippi, Columbia, and Colorado River systems. Except for the extremes of torrid and frigid, here were all the variations of climate, and congenial home for all the flora and fauna of the earth.

The geologic growth of America can be easily traced from the carboniferous period, at the close of which the continent was about its present size, though scarcely above the sea, the oldest development being the laurentian and huronian rocks of British America, the crystalline granite, gneiss, and trap north of the great lakes likewise forming the western slope of the Rocky mountains and the Andes, and underlying the alluvial deposits of the valley of the Amazon in South America. Not until after the carboniferous period did the mountains appear, rising through this and through the Silurian and Devonian strata.

The continents were not connected during the tertiary period, the Panama isthmus being then still under water. Following a line drawn from west to east through the United States, and we find the geological construction of California metamorphosed secondary strata underlying patches of tertiary sediment. Across the Sierra and interspersed with beds of Triassic, cretaceous, and tertiary, are great folds of Paleozoic rocks, Silurian, Devonian, and carboniferous strata whose crests rise into the ridges of the Rocky and Alleghany mountains, and upon which rest the Michigan, Illinois, and Appalachian coal fields. On the Atlantic side is gneiss, sometimes covered with new red sandstone, and underlying tertiary and cretaceous strata.

The native races of the great interior mountains and desert were not altogether ignoble, though some of them, as the Shoshones of Nevada, were but little above the vermin they lived on. But so long as environment rules, what can be expected from a humanity dependent for life on a sage-brush desert? But the Mormons found in Utah people superior to these, and more like the typical American Indian of Coopers novels and Morgan's civilization, while in the south were indeed marks of a higher culture than even the Iroquois tribal intricacies would indicate.

The Pueblos of New Mexico lived in permanent adobe houses, in town communities, their habitations being of several stories, each building containing many families, and often a single one constituting the town. When Cabeza de Vaca first told of them in 1538, and Friar Marco de Niza the year following gave in the exaggerated report which led in 1840 to the expedition of Coronado, they were then as far progressed in civilization as they are today, being growers of cotton and grain, and manufacturers of cloth and pottery. So with regard to the Moquis of Arizona, likewise visited by Coronado in 1540; they were wholly an agricultural people, with domestic animals, and manufacturing whatever they required in the way of cloth, blankets, and knitted articles. The Utes, of Utah, New Mexico, and Colorado; the Shoshones of Montana Idaho and Nevada, and the tribes of California having so many names as to be nameless as a whole, had little to boast of, save happy hearts, in the way of wealth, living nearly naked, in brush huts and caves, and eating roots, rabbits, grasshoppers, snakes, and other like dainty fare. On the upper Missouri lived the Mandans, described by Lewis and Clarke, who

passed through their domain in 1804. The government set apart for them, with the Rickarees and Minnetarees, in 1870, in Dakota and Montana, 8,640,000 acres of land.

Nature divides Colorado into three parts, the Rocky Mountains on the western side, the foothills sloping eastward, and the plains below. About one half came to the United States by the Louisiana Purchase in 1701, and the rest was won with California from Mexico in the war of 1846-1847. The towns of Colorado are in the mountains, because the metals are there some parts of the foothill country are richly metalliferous, but the land here being good, and watered, and in places wooded, it is adapted for grazing. In a word, Colorado belongs to the Rocky Mountains, the eastern part sloping down toward the Kansas prairie. Several of the mining camps are 10,000 feet above sea level, one mine at least, called Present Help, being 14,000 high. There are many valleys, the largest of which are called parks, yet rimmed with hills, while the surface is undulating, grassy, and with wood and water.

The climate is of value as well as the soil, for many come hither to gain health. Denver is 5,197 feet above sea-level and the air is dry and electrical. The forests of the foothills are mostly of cedar, pine, fir, spruce, and hemlock; above, to an altitude of 9,000 or 10,000 feet are trees of good growth; above that the vegetation is stunted. On the lowlands were once vast herds of Buffalo; prairie-dogs once held sway; in the mountains above are deer, antelopes, hares, and wild goats, besides wolves, bears, wild cats, and some beavers and otters. Wheat, corn, oats, and barley may be raised, but irrigation is necessary. Colorado now yields more silver than any other of the United States, and is third in yield of gold, being of the former about $20,000,000 and of the latter $4,000,000 per annum. Gold placers were first discovered in 1858, on the head waters of South Platte River, near Pike peak, and it was not until ten years later that silver assumed any considerable importance as a production. At first all the richer silver ores were sent for reduction out of the state, but after 1874 smelting works were erected at Denver and elsewhere, increasing in number and dimensions until the industry assumed large proportions. Hoisting works and railroads have also been constructed, and the bullion product still increases. Besides gold and silver, Colorado has iron and coal, with extensive works at Pueblo.

Washington, Idaho, and Montana, once a part of Oregon, are akin in wealth and development. The first has forests, soil, and mineral wealth, the second grazing lands and mines, while Montana besides cattle-raising has developed some sections of the richest mineral wealth in the world. It is safe to say that Washington has yielded in precious metals $60,000,000, Idaho $140,000,000, and Montana $550,000,000. Rubbing the Aladdin lamp in Montana, and ten miles of auriferous ground in Alder gulch gave $60,000,000 in 20 years; $16,000,000 were taken from Last Chance gulch, near where Helena now stands; nuggets of 10 ounces and more were common; in McClellan gulch, five men took out $30,000 in eleven days; as elsewhere on the Pacific slope, the ditches dug for conveying water to the mines aggregated hundreds of miles and cost hundreds of thousands of dollars.

Driven from Illinois and Missouri, the Mormons came in 1847 into the wilderness of Utah, and made it blossom like the rose. This for religious liberty and wives and things. Agriculture and manufactures they developed according to their needs, and all went well until the serpent entered in the form of gold, bringing with it a swarm of gentiles, who often found even one wife too many. Attention was early turned to irrigating canals, and the water poured upon this parched earth produced a wonderful effect. Almost everything would grow, and the crops of grass cereals and potatoes in places were great. Stock-raising became an industry; and as ores and coal were present ironworks were established. There were lakes full of salt, and large beds of sulfur, besides sulfurets of antimony, gypsum, mica,

cinnabar, cobalt, bismuth, carbonate of soda, and mineral wax. From a hundred and more mining districts in Utah have come from first to last mineral wealth to the value of $140,000,000.

There are a million square miles of bad lands in the United States west of the Missouri river, sterile hills and alkali plains, but the so-called bad lands proper, are mostly in Wyoming, some in the southwest corner of Dakota and west of the Black hills, and between them and the Bighorn mountains. As in the desert valley of the Colorado, in Arizona and California, the atmosphere is here so hot and dry as almost to blind the beholder, and transform the rocky irregularities of bluffs, canyons, and mountains into the houses and amphitheaters, the minarets and towers of a magic city. In 1872 were set off 3,575 square miles of north western Wyoming in the Yellowstone region for a national park. Here are hot springs, geysers, lakes, and waterfalls in all their native charm. Geologists tell the story of a great Cretaceous sea which once covered the continent west of Kansas, the Sierra Nevada being a long narrow island, while the coast range was wholly out of sight. Then the land slowly uplifted, the dripping of its water into the sea forming the great rivers, the Yukon, the Fraser, the Columbia Sacramento and Colorado.

The climates of the Rocky Mountains and thence to the Pacific are innumerable and varied. The temperature changes with every breath of air, with every cloud that veils the sun. The isothermal lines from the east, on reaching the Pacific seaboard bend to the north in winter and to the south in summer. The east-bound traveler from San Francisco in March, for example, leaves warm quiet days, with the nights a little cooler, crosses the bay and passes through the blossoming fruit farms of the Coast range and the green grain fields of the great valley of California, ascends the Sierra amidst vast solitudes of snow, while on the eastern slope the warm morning sun is beating upon the bare, brown hills and white alkali plains of Nevada, and all within little more than twelve hours travel by rail. In the valley is one climate, on the mountain top another; the sea dominates on one side, the sierra on the other. The three sides of a hill, the two sides of a street, the four sides of a house, have each a climate of its own. The sea cools the shore for a distance of five to fifteen miles inland, according to the intervening hills; the higher elevations are cool even in summer; the interior valleys are warmer in summer and cooler in winter than the sea-tempered shore, though there is nowhere severe cold save in the Sierra in winter. Oranges will grow on any of the lower levels south of Mount Shasta where they can find shelter. So with olives. But away from a congenial atmosphere none of these semi-tropical fruits do well. Unlike man, plants cannot adapt themselves to any clime. Taken from their indigenous home in the old world, they seek a like home in the new world. Those that come from India or Italy want like conditions of life in America. The orange and the lemon are kindred in their requirements, though their tastes differ in minor particulars. Neither like frost; both must have plenty of water, fresh water in the soil not salt water in the air,—though the lemon has no objections to a neighborly nearness to the sea. Los Angeles and San Bernardino counties are better adapted for oranges than for lemons; there is more good than lemon land in California. All along up and down the coast, and back to the Rocky range are pockets and belts of warm air where some one of the semi-tropical plants will grow.

Irrigation accomplishes wonders as a wealth-producing power in the Rocky Mountain and Pacific states. Even in desert lands flowers appear where water is poured upon the thirsty land. There is soil in Arizona sands; and one great scheme of irrigation is to turn the Colorado river, seven percent of whose waters is fertilization, upon the San Diego desert, which is in places 250 feet below the level of the ocean, and make of millions of acres another Egypt watered by another Nile.

The first systematic irrigation in California was by the Franciscans at their missions. The Mormons quite changed the appearance of the valley of the Great Salt Lake by turning fresh water upon the land. Then mining ditches in various sections were used for irrigating when the mining industry merged into agriculture. Riparian rights come in sometimes to interfere, as it was said it makes a difference whether water brought from a distance be used to wash out gold or grow oranges. Among the great latter-day irrigation achievements are those of Haggin and Carr and Lux and Miller on King River, Kern County, California. On the head waters of the Santa Anna River is the Bear valley irrigating reservoir, 6,000 feet above the sea, the dam arched in on the water side, as indeed is that of the Sweetwater, San Diego. On the Tuolumne River is a dam at La Grange which cost half a million, and collects the water which irrigates wide areas. Then there is a dam at Folsom, 64 feet high and 640 feet long, and built of granite blocks. Two million acres are irrigated in California by works costing $25,000,000. The Kern County Canal is 125 feet wide and 32 miles long, with 1,500 miles of laterals, watering among other lands a field of alfalfa of 20,000 acres. In Fresno County are 300 miles of main, 1,000 miles of branch, and 5,000 miles of distributing ditches. So I might go through with every county in the state, which in this way is becoming to be well watered and prolific. San Diego county has many hundred miles of main and distribution canals but the most, extensive and important work there or for that matter in the state, is that of the mountain water company by John D. Spreckels and E. S. Babcock and which is to consist of three great dams and 48 miles of main, and is to supply the city and water 100,000 acres.

In India, with labor at twelve cents a day, are irrigation works which cost $200,000,000, and yield a revenue of eight percent per annum. The Ganges Canal, 170 feet wide and ten feet deep, cost $55,000,000 and waters 1,000,000 acres.

The Moors by irrigation raise the value of land fivefold. A cubic foot of water per second serves in India for 300 acres; in Spain from 250 to 1,000 acres; in Arizona from 200 to 500 acres; in California from 300 to 1,500 acres. The Chenab irrigation canal in the northwest of India is 200 feet wide and 450 miles long, with 2,000 miles of laterals and 4,000 miles of distributing ditches, and watering 250,000 acres. California might do something like this by tapping Lake Tahoe, and, gathering in the Yosemite and other flood-gates of the Sierra, carry it all to San Francisco, and water the greater part of the state; meanwhile, on its way down the mountains manufacturing electrical power to drive all the machinery in the country. India has a dam of massive masonry covering eight square miles, and making available 100 millions of gallons of water for every day of the year. Hundreds of tracts along the coast and back in the desert country have been reclaimed from sterility by artificial watering, and millions more await reclamation. Already irrigation has added over 1,000,000 acres to the cultivable lands of Arizona. Upon the decline of mining in Nevada the ditches were used for agriculture, and the hitherto apparently sterile wastes of broad sandy sage-brush plains were covered with verdant alfalfa and waving grain.

The works of irrigation created and carried on in Colorado have been from the first and still are very extensive, as also have been canals and ditches for mining purposes. Indeed, in Wyoming, Utah, Montana, and Idaho, with a liberal distribution of water there are agricultural possibilities on every side, whereas without artificial aid in the distribution of water little can be accomplished in any direction. Among other great works in Colorado is the diverting of the water from the Big Laramie into Cache la Poudre River, which indeed is nothing less than drawing water from the Pacific slope to pour upon the fields and valleys of the Atlantic slope.

All this is well to consider before allowing ourselves to be troubled by the Malthusian theory of the extinction of the human race by population in excess of the earth's ability to support it. It is no exaggeration to say that the so-called Bad Lands, and otherwise wholly useless lands of the United States, with artificial irrigation and proper fertilization will sustain half of the present population of the world, and the good lands of the republic would sustain the other half. It is impossible to overestimate the value and wealth hidden in the sands of our so-called deserts, for we have no actual deserts in the United States, very few acres of land as thus far shown but with proper fertilization and moisture will bring forth abundantly. Scores of cities and towns, and hundreds of fertile farms have thus been reared on the sands of Utah. Brigham Young saw the possibilities instantly when he halted his people in the valley of the Great Salt Lake, and set them digging ditches to flood it with water. Before the consummation of these works of the Mormons, no one knew the possibilities of those apparently sterile wastes, just as no one knew that the bunch grass of the Rocky mountains was the best of feed for cattle, winter as well as summer, until the worn out work-oxen of certain emigrants which in the autumn were turned loose in the snow to die, were found in the spring fat and flourishing. The poor beasts had found, where the wind had cleared off the snow in spots and piled it up in drifts, a nutritious grass; and thereupon arose along that ridge a crop of millionaires called cattle kings, who for a time eclipsed the mining kings, and even the gods of transportation.

Notwithstanding the fact that taking all together it costs two dollars in money and labor to mine one dollar, thus making gold a somewhat costly measure of value, there was never in the world so much mining as now. Not only in the new placers, in South Africa, in Alaska, in Siberia and China, but in the old, in Australia in South America and, Mexico, in California, Montana, and British Columbia, new mines are being discovered and the old ones reworked with new appliances and good results. And so with the other metals; this is an age of in which the forces and valuable material progress, substances of nature are more than ever before utilized and made to do service in the arts and industries. Gold is a metal scantily distributed through the earth, of little use for any other purpose than as a measure of values, and that chiefly because it is not plentiful or corruptible though itself corrupting many.

Much more gold is still in the earth than has ever been taken from it, and much more in seawater than in the land. But how about the interior of the globe; is it all gold there; or only lakes of it or rivers, or oceans? One messenger we have had from there that is, quartz—or call it silica or rock crystal if you like—born of heat and condensation and brought to the surface by convulsions but always bearing gold, infinitesimal in quantity, perhaps, or maybe half or three fourths metal.

The placer mines, or golden gravel-banks of the Spaniards, springing from the decay of quartz and the washings from quartz ledges, are always the first to be worked, involving little expense, while in quartz and in hydraulic mining time and expensive machinery are required, stamp crushing mills in the former instance and water ditches and pipes in the latter. From placer mines thus far has come nine tenths of all the gold, a small proportion only being released from lead, quartz, or other substances. But whence comes the placer gold, if not from its primeval home in the rocks and mountains? This question the gold-seekers of the Sierra foothills of California used to ask as they picked up from the river beds and banks the water-rounded pieces, large and small, and then start off for the mountains beyond in search of the golden mother-mountain which must be somewhere up the streams; else how came the gold dust distribution below?

Colorado, resting on the backbone of the continent, one side sloping toward the Atlantic and the other side toward the Pacific, has been profuse in exhibitions of the marvelous, from its first emergence from a state of apparent worthlessness to displays of the grandest results and yet greater possibilities. Leadville, the carbonate camp as it was called, well up toward the top of the continental ridge, has long been famous throughout the world. Later we have Cripple Creek, as in Arizona Cherry creek, and in New Mexico Ute creek. Cripple Creek is rated at about a twenty-million-per-annum district. Among the scores of rich mines here developed stand conspicuous the Independence, Battle Mountain consolidated, and the Portland, the last named with 135 patented acres of mineral ground, and mechanical properties of the best and most extensive. But notwithstanding the immense yield of precious metals, Colorado's most substantial hopes are in coal and iron, the supply of which is well-nigh inexhaustible.

Denver, the capital of Colorado, so-called in honor of James W. Denver, governor of Kansas, for the first year of its existence, 1858, enjoyed the name of Aurania. Its importance and growth have been increased alike by the mining, manufacturing, and agricultural interests of the state, and by railways.

The city owes much to H. A. W. Tabor, who brought the wealth of the mountains to build and beautify it, spending millions for that purpose. He erected one of the finest opera houses in the United States, and other important buildings; he was always alive to the political interests of the state, and was for a time United States senator. Denver has many fine public buildings, as the state capitol, branch mint, university, and others; also large smelting, agricultural implement, gunpowder, and iron works, beside breweries, flour-mills, and cement glass and chemical factories. Water is brought from the Platte River, for a distance of over 100 miles, through a canal which not only supplies the city but irrigates the lands contiguous. David H. Moffat, president of the First National bank of Denver, gave $50,000 to the mining and industrial exhibition of Colorado. W. S. Stratton after many ups and downs, at last met his fate at Cripple creek in the form of a million or two income a year.

Wonderland, the Yellowstone Park is called, but we have so many wonderlands, and so many other wonders that the wise world is ceasing to wonder at all. There are spouting waters, hot and cold, of sulfurous or other infernal smell, in many places in America, but these of the Yellowstone may be the largest and the fossilized trees hereabout the stoniest; and then the government owns the park, and proposes to keep it for the people, and that of itself is a wonder. Montana's output of gold has been from earliest times very large, and will so continue throughout the twentieth century. So with Idaho and Washington and with, Oregon in lesser degree. Great developments are in progress in British Columbia, and most marvelous of all will be the revelations from frozen Alaska . New Mexico is a broad arid upland plain, 5,000 feet above the sea, and rising from which are ranges and peaks of yet again as great an elevation.

The soil as a rule is not the best for agriculture, but on the nutritious grasses that here grow, and dry into hay without cutting when the snow melts, vast numbers of cattle and sheep fatten and flourish. Metals abound, and grain-fields, fruit-farms, and gardens may be made in places by irrigating. An overland stage line from Little Rock to Los Angeles was established by Butterfield in 1858, and from St. Joseph to Sacramento by Russell Majors and Wadell in 1860, the latter line having in use 150 stages, 1,500 horses, and 6,000 oxen for hauling supplies. Fare $250 to $150. Alexander Benham, of Butte City, Montana, was one of the organizers of the Pony express.

Brigham Young, who led far into the wilderness the people for whose cause Joseph Smith gave his life, must be regarded as a great man, if wealth, power, and genius make great men. Call him if you like fool and fanatic—where is the man who is not so in some degree—or peradventure sensualist, with his forty wives—though your true sensualist is he who has no wife but many women; call him prophet and seer, but if all the superstitious people in the world were slain, how many would be left? Shrewd he was, doubtless, making so many silly and stupid ones to believe in and after a fashion worship him, but so did Christ and Mohammed before him. After all it is not a very difficult business, that of religion-maker, people are caught so easily and so love to be deceived. However we choose to regard it all, we must admit that Brigham Young was an able man, for with the army of believers he subdued the wilderness and founded the commonwealth of Utah. They began with next to nothing, having only their hands and the few effects brought from afar by their slow ox-wagons. They had no money, and they needed none, all their transactions and the Lord's—that is Brigham Young's—tenth, being on a traffic basis, in kind. Like contributions built at Great Salt Lake city the tabernacle, seating 10,000 persons, and the temple, of which even Solomon need not have been ashamed. The city has become the metropolis of the mountains, with charming surroundings as seen through the high transparent air. George Q. Cannon was an able and wealthy member of the Mormon faith, from the time when in 1847 he went with Brigham Young to Utah to the time when mines and railroads Americanized the country, and sent the Cannons, father and son to congress. In a propaganda mission to Europe in 1860 Mr. Cannon sent back no less than 13,000 proselytes within about a year.

Boise city, the capital of Idaho, is surrounded by a profitable fruit-growing industry, having the mines for a market, and is supplied with water and water-power by two long ditches from the Boise River. Idaho and Montana grow the best grain, the barley of the Gallatin valley being specially desirable for brewing. Agricultural lands here often pay a yearly profit of $30 an acre. A. J. Davis went to Montana, made some millions, and died, and the fight of the lawyers over what he left made his name famous. Erwin Davis, conspicuous at one time by reason of his reputed wealth in San Francisco, found Ralston, with his bank of California, too strong for him in a struggle over the control of one of the Comstock mines in Nevada, just as Ralston found Flood and O'Brien too many for him, and Flood in his turn found wheat, and O'Brien barleycorn, too much for them. So runs the world, the records of the men of millions being little else than a coming and going, like a record of all the rest. The San Francisco Davis made friends with the rich, whom he delighted either to follow or lead, as the case might be; yet Davis in the stock board was not Achilles, but only Patroclus in the armor of Achilles. And yet these, and others, the high rich and the low rich, are supposed to get out of wealth in this world all there is in it; but wherein all the same, and after all that can be said, they are about as much honored as Caligula's horse, which was made consul and priest, given an ivory manger for his food, and a golden goblet from which to drink wine.

Miscellany

If we estimate as the quantity of mined gold in the world at 4,000 millions, and the population 1,500 millions, we find that an equal distribution would give to each person $267 2/3. All the gold in the world available for use as money could be contained within a cube of twenty-two feet.

The world's production of gold is at the rate of $175,000,000 a year.

The world's total product of gold to the present time is as estimated $13,000,000,000, and of silver $11,000,000,000. Prior to a i» 1500 there was taken from the earth some $10,000,000,000 worth of gold and silver, yet the existence of not more than $200,000,000 could then be traced. Although America gave to the world $6,000,000,000 in three centuries, in 1810 the existences of not more than $2,000,000,000 could be accounted for.

The Comstock Lode of Nevada had mineral ore in one compact body, between defined walls, of 4 3/4 miles in length, and from 600 to 1,000 feet in width, from which over $600,000,000 in silver and gold has been taken.

During the first three centuries of European rule Colombia, Venezuela, and Brazil yielded largely, Brazil alone giving $1,000,000,000.

In Australia the output, mostly from placers, was $30,000,000 a year. Asia gives $5,000,000; and Europe, mostly from the Ural Mountains, $30,000,000 a year.

Idaho has an inexhaustible supply of mica.

A gold nugget was found in the McIntyre lode, Montana, weighing 1,785 pounds.

In 1860 the 3,000,000 original British colonists in the United States had become 32,000,000 having 6,000,000 horses, 2,000,000 working oxen, 8,000,000 cows, 15,000,000 stock cattle, 22,000,000 sheep, and 33,000,000 hogs; cotton crop 1,000,000 tons, grain crop 1,200,000,000 bushels, tobacco crop 500,000,000 pounds. There were of railways 30,000 miles, of canals 5,000 miles; annual textile manufactures $200 000,000 in value; schools and colleges 113,000, teachers 150,000, educational revenues $35,000,000, attendance 5,500,000 pupils; churches 54,000, attendance 19,000,000; newspapers 4,000 circulating 1,000,000,000 copies yearly, and owned 2,000,000,000 acres of land, and 4,000,000 negro slaves.

On the Thames, Seine, and Nile are many barrages, or reservoirs. At St. Denis du Sig, foot of Mt. Atlas, is a barrage 50 feet high, and costing $100,000; it was built by the French, who also have several in Algeria. Near the St. Denis du Sig barrage is the Habra also constructed, by the French government, at a cost of $800,000, for the purpose of irrigating a farm of 100,000 acres. This reservoir has a breakwater 120 feet thick, 130 feet high, and 1,500 feet long, and holds 14,000,000 tons of water.

Chapter the Twenty-Fifth: Midcontinent States

Ocieca cupidigia, o ira folle,
Che si ci sproni nella vita corta.
E nell' eterna poi si mal c'immolle!
—Dell Inferno

It is better to live rich than to die rich.
—Ben Johnson

Men who could willingly resign the luxuries and sensual pleasures of a large fortune cannot consent to live without the grandeur and the homage. Riches without law are more dangerous than poverty without law.

—Beecher

Riches are not an end of life, but an instrument of life. Money makes up in a measure all other wants in men.

—Wycherley

Genius scores the power of gold; it is wrong; gold is the war-scythe on its chariot, which mows down the millions of its foes, and gives free passage to the sun-coursers with which it leaves those heavenly fields of light for the gross battlefields of earth.

—Ouida.

Money, in truth, can do much, but it cannot do all; we must know the province of it and confine it there. and even spurn it back when it wishes to get farther.

—Carlyle

Character is money; and according as the man earns or spends the money, money in turn becomes character. As money is the most evident power in the world's uses, so the use that he makes of money is often all that the world knows about a man.

—Bulwer

Gold is a wonderful clearer of the understanding; it dissipates every doubt and scruple in an instant, accommodates itself to the meanest capacities, silences the loud and clamorous, and brings over the most obstinate and inflexible.

—Addison

More than a century intervened between the occupation of the Mississippi valley by the French and the occupation of trans-Mississippi regions by Anglo-Americans. The bursting of the John Law bubble left a line of thrifty French settlers from New Orleans to St. Louis, who had at hand everything the new world could give them, without troubling themselves in regard to the limitless unexplored lands to the westward. Trappers, it is true, penetrated as far in that direction as they chose to go, but that was not far. France pitched tents but planted few colonies in America. After the transfer of Canada to England in 1762, and later of Louisiana to Spain, the Mississippi valley finally falling to the United States, there was a long pause before the people from Europe had any desire for more of this western wilderness.

Discovery beyond the Mississippi began with the explorations of the Verendryes in the Mandan country in 1731-1743, and the voyage of the philosophic savage. Moncacht Ape, up the Missouri and down the Columbia to the Pacific Ocean. These were followed by the expeditions of Jonathan Carver to the land of the Dakotas in 1766, of Pike and Long, 1805-1820, to where is now Colorado and Council bluffs, of Lewis and Clarke who in 1804-1805 followed the track of Moncacht Ape, and the overland Astor expedition to Astoria at the mouth of the Columbia in 1810. After that trappers and traders scattered themselves over the region where now are Iowa and Minnesota, Kansas, Nebraska, and Dakota, building forts and mingling with the natives.

The great fur-trading association of Laclede Maxan and company, New Orleans, derived their commission from the director-general of Louisiana as early as 1762, and the following winter Auguste and Pierre Chouteau established a trading post where now is St. Louis. At this point centered the fur business of the country which extended a thousand miles away to the north and west, amounting to some $300,000 a year. "Like any gold or fur-hunting metropolis," I find written in The Northwest Coast, "St. Louis at this time was the center of rude bustle and business activity. With the original Creole population, the descendants of the French colonists, and stray reminders of Spanish domination, were mixed keen trafficking New Englanders, brawny backwoodsmen of the western frontier, tall big-boned specimens of the unwashed and untaught corn-bread-and-bacon-fed of Tennessee Kentucky, Illinois, and Missouri, with voyagers from Canada, half-breeds from the prairies, following their several bents, trading, gambling, fighting, loafing, strutting, swaggering, drinking and swearing, laughing and singing, like other filthy foul-mouthed ignorant and blasphemous assemblages of God's motley mortals."

Independence and St. Joseph were also points of departure for fur-hunting expeditions, and later for the overland emigrant trains to Oregon and California. John Jacob Astor had an agency at St. Louis, also the Northwest Company, under the management of Jacob Mires. The Missouri Fur company of St. Louis originated with Manuel Lisa, a wealthy and honorable Spaniard, and eleven others, who with $40,000 capital proposed to monopolize the fur trade in that section, and succeeded for a time in doing so. In their service were 250 white men, trappers and traders, besides thousands of Indians. One of the partners, Mr. Henry, in 1808 built a fort on a branch of the Lewis River. Then came the operations of Astor from this point, the Columbia Fur company on the upper Missouri and Yellowstone, and the American Fur company, under whose direction W. H. Ashley built a fort in the Utah country. Smith Jackson and Sublette in 1826 established at St. Louis the Rocky Mountain Fur company, operating along the Santa Fe trail to New Orleans and Chihuahua; and there were many other companies and independent traders and trappers who lent their aid to bring to the light of civilization the vast region beyond the Mississippi and Missouri.

The despoilation of the native nations by patriots and puritans from Great Britain, and their descendants, begun by robberies frauds wars and massacres, and continued by rum religion and the diseases of civilization, was finally completed by so-called purchases and treaties, until the Indians were "treatied" out of their possessions, and finally out of the world. Some of the few remaining, however, inheritors from all who were before them, and against whom no further excuse for robbery could be brought up, became rich, even as riches are reckoned among the civilized. For what they were forced to abandon the scattered tribes were gathered and conveyed to a region beyond the great river, and there placed in possession of territory covering 64,223 square miles, or 41,102.546 acres, which further "treaties" reduced to 20,000,000 acres, 8,000,000 of which were tillable. Here 50,000 Indians grew wheat, corn, cotton, horses, mules, cattle, swine, and sheep, with Negro slaves so plentiful that there were, after the war, 17,000 freedmen. They now have schools, churches, and all the paraphernalia of culture, and many of them are educated, intelligent, rich, and prosperous. At most of the other reservations, where were gathered under protection of government the remnants of many tribes of these children of the forest, the hungry spoilers are still hot after them, clamoring for their yet further crowding up, so that white men may have their lands.

Oklahoma, that is to say "beautiful land," consists of the center of the Indian Territory. When seen by Diego Dionisio de Penalosa in 1662, it was, as he reports, a land "pleasant and delightful, and so covered with Buffalo, or cows of Cibola, as to cause notable admiration. There were beautiful rivers, marshes and springs, studded with luxuriant forests, and trees of fine fruits, particularly plums of excellent flavor; strawberries and great clusters of grapes; mulberry trees for silk growing; roses and fine grasses, with useful and fragrant plants, clover, flax, hemp; all kinds of game, birds, animals and fishes, partridges, quails and turkeys, deer, elk and antelope;"—these for native resources, which enlarged and expanded under cultivation. Presenting the Creeks and Seminoles $4,000,000 for this garden of their reservation, the United States in 1889 opened the tract to settlement, and in rushed 50,000 settlers, and ere long there was territorial government, with Guthrie the capital, and farms, towns, banks, newspapers, and the rest, flourishing on every side. And still the cry of the white man is for more of the red man's lands, insatiable in an avarice and greed which will not be satisfied as Iong as anything whatever remains.

The Sioux, or Dakotas, inhabiting the head waters of the Mississippi, were first made known to the French, by the Algonquians in 1640. Twenty years after they began a war with the Chippewas and Hurons which continued for half a century. The government several times made purchases of their lands, moving them each time further back toward the west until the United States became indebted to them over $10,000,000. The war which broke out with them in 1862 cost the government $40,000,000. In the war of 1876, resulting in the annihilation of Custer's command, the chief, Sitting Bull, played a conspicuous part, and on meeting with defeat later, escaped to Canada. The Omahas, whose reservation of 345,000 acres is in Nebraska, between the rivers Elkhorn and Missouri cultivated corn, beans, and melons, and indulged in religious and domestic vagaries peculiarly their own. On the right bank of the Missouri, opposite the bluff where was held the council which gave them their lands, stands the capital city of Nebraska, to which, their name was most appropriately given.

The Blackfeet were originally on the Saskatchewan, but later on the Missouri. They were great warriors and robbers, and hence became rich in horses, weapons, and furs. For so roving a people, living in skin lodges and without fixed villages, the Comanches managed to collect considerable

property, particularly during the palmy days of overland and Mexican travel, when long caravans of richly laden and poorly guarded wagons moved slowly along the Santa Fe Trail. In like manner the Apaches reaped rich harvests from the emigrant wagons, before and after 1849.

The individual property of 3,218 Comanches in 1872 was estimated at $400,000. Both of these fierce nomadic nations roamed over the country between Texas and Arizona, and along the line into Mexico, the Apaches tending toward the west and the Comanches toward the east within these limits. By act of congress of May 28, 1830, the Cherokees, Choctaws, Chickasaws, Creeks, and Seminoles, living in Tennessee, Georgia, Mississippi, Florida, and Louisiana, or also the remnants of the Iroquois, Six Nations, the Wyandottes, Senecas, and Shawnees, in short all the Indians yet remaining east of the Mississippi were sent to the unorganized portion of the Louisiana purchase west of the Mississippi river, later known as the Indian Territory, Kansas, and part of Nebraska. To the Indian Territory were afterward conveyed the lowas, Poncas, Otoes, Delawares, and Kaws of Iowa, Nebraska, and Kansas; also the Sacs and Foxes of the upper Mississippi, the Modocs from Oregon, in fact all who any where yet stood in the way of those having the power, and claiming mental or moral superiority.

Animals and plants useful to man, and which with his manipulation became wealth, were abundant and varied. Take the Buffalo of the plains; after civilization had preyed upon them for two and a half centuries, they were still so thick as to seriously interfere with early traffic. Many an overland caravan was trodden under foot by them, and so late as the year 1870, trains on the Kansas Pacific, and other midcontinent steam roads, were sometimes derailed by Buffalo, until the engineers learned that it was better to halt and give the way than to ignore or oppose them. Ten years later they were almost extinct. Their range was from the Alleghenies to the Sierra Nevada, and from Zacatecas in Mexico to Great Salt Lake in Canada. Small herds have been domesticated, or propagated, by C. T. Jones of Kansas, Charles Allard of Montana, Robert Wickliffe of Kentucky, and others, the buffalo being in some instances successfully crossed with domestic cattle, the product being a large hardy animal easily kept. The great horned beast, in his boundless native pastures, was the king of savagedom; for though food and raiment for the Indians, they still flourished under the contribution, and until they became old or disabled—dead or ready to die—wolves and bears were no match for them in fair fight.

Doubtless from the early beginnings Europeans have influenced development in the United States, but native Americans have done more. Many of the best builders of our commonwealth have never been brought to the front, but have lived and labored in obscurity, as artisans rather than as architects; yet by these, and as much by living as by laboring, have our institutions been established. The great men of the Midcontinent States are yet on their way from boyhood; or if full stature has been attained they have yet for the most part to become known to the world beyond their own world. Recognition is not given gratuitously, oftentimes not even gracefully, but must be enforced by superiority of strength and character, even as Lincoln and Harrison and McKinley won their way to the front. Within the twentieth century how many prominent or presiding officers of the nation will be furnished by Minnesota, by Iowa, by Nebraska? Doubtless their share. Lucretius in his De Rerum Natura, thus speaks of the origin and evolution of states.

Those, too, elected rulers, now began
Towns to project, and raise the massy fort,
Heedful of distant dangers. Into shares
Their herds and lands they severed; and on those

Chief famed for beauty, elegance, or strength,
Allotted ampler portions; for the form
Much then availed, and much the potent arm.
But wealth ere long was fashioned, gold uprose,
And half the power and strength and beauty fled.
And still the brave, the beauteous still, too oft
Alike to riches bow the servile knee.

Wealth, like speech, or any other adjunct or concomitant of civilization depends upon association. Environment dominates. Wealth is wholly artificial. An individual article or possession, apart from any other article or possession, however intrinsically valuable or necessary, is not wealth. In societies purely primitive, there is no such thing as wealth, in the sense of property or possession, for the air and the sunshine, water and land, fruits and flowers, fish and game, are free to all. But when an implement is made, or a tool fashioned, whereby the possessor is better able to secure food or raiment or shelter, to capture wild beasts or navigate the water or till the land, that yeasty problem progress sets in, and with progress property, for these are ministers to property—impelling powers. In due time metal takes the place of wood and stone in the manufacture of tools and utensils, woven fabrics supersede skins for clothing and handmade habitations are preferred to primeval caves. Land boundaries are marked off and opposing tribes admonished to keep within their lines; animals are domesticated, and men and women placed under divers bondages to each other, and in mortal fear of celestial powers—badges of a servitude which beasts disdain to wear. And when riches come, various are their kinds and conditions. From association come increased land values; governments require palaces and other public buildings, fortifications, canals, and highways; the people want their pleasure-parks and picture-galleries, while poverty and crime demand poor-houses, hospitals, and prisons. Private or individual wealth is found in merchandise and machinery, as well as in land and land products, mines, manufactures, and transportation contrivances.

All wealth is precarious; some kinds less so than other kinds. Paper promises to pay are not durable, and hence they are profitable to the producer; gold currency is costly, and though of durable metal it quickly drops out of hand and is lost; when it can no more be replenished from the mines some other measure of values must be found. But notwithstanding moth and rust, necessary consumption and inevitable destruction from the outbursts of men's passions and natures powers, fire water and electricity, wars and earthquakes, there are yet more riches in the earth than have ever been drawn from it by many hundred fold. And though richer now than ever, the world is still heaping up wealth at a rate hard to realize, owing largely to inventions, labor-economizing machinery, and increased facilities for the exchange of products.

The experiment of self-government begun in the eighteenth century was to be proved in the nineteenth. The three million of British subjects who had then thrown off the yoke of the parent state were inclined to peace; they wanted nothing that was another's, and had no fear of men; they were spared the necessity of supporting in idleness either a royal family, a titled nobility, or a standing army. For two and a half years peace was disturbed by a claim to search American ships for British sailors. During this war the Americans were victorious in several naval engagements, but were repulsed in their invasion of Canada. The British captured Washington City, but were badly beaten at New Orleans. And although England had a thousand armed ships and a million of armed men, while the United States had neither army nor navy, yet both sides were glad to stop such senseless

proceedings. Progress for the next fifty years was greater than ever had been in the history of nations, and greater than probably ever will be again. Intelligent, enterprising, free, with limitless land in a temperate clime, population and wealth four times doubled themselves once in fifteen years. From Napoleon Louisiana was purchased, Spain ceded Florida, while Texas and California were taken from Mexico.

Then came the great upheaval, the civil war. The people of the south had been brought up in the belief that slavery is right; their industrial greatness seemed to depend upon slave labor; the Negro, steeped in ignorance and naturally lazy and improvident, would not work in the cotton rice and tobacco fields except upon compulsion. The constitution under which the states had federated guaranteed them property rights in the black man, and these rights must be respected. The people of the north thought differently. Slavery was an unholy and antiquated institution, a stain upon civilization and the republic, and must be abolished. The south then proposed separation, but the north said No, ours is a permanent compact, not a temporary association. War followed, eleven states seceding. The south were victorious at the outset, but in the end the north prevailed. Not only was slavery abolished, but the stolid African was placed upon a political equality with enlightened citizens of the commonwealth, and thus was perpetrated a greater infamy, a greater self-degradation than any Athens or Rome can boast; and there are even today people in America who regard this unhallowed crime a raising up of the poor down-trodden African instead of an abasement of all the principles of self- government, a moral and political degradation, a prostitution of all that is pure and progressive in republicanism.

The war was a terrible blow both to the north and to the south. Two millions of the brightest and best of the nation's young men, and six thousand millions of money had been offered up a sacrifice to the integrity of the nation, the glory thereof to be so soon dimmed by the infliction of that greatest of abominations, the enfranchisement of the negro. Spasms of progress appeared in the north, while the wasted south recuperated more slowly. With a population of seventy millions in 1900, the people of the United States find not more than one-half of their tillable land under cultivation. Less than a century and a half ago the Anglo-American colonist might not make so much as "a nail for a horse's shoe," as Lord Chatham expressed it; now the United States are commercially self-contained and independent of foreign factories for any article of necessity or luxury. It is we who serve the foreigners, and not they us. Were all intercourse with foreign nations completely cut off for the next hundred years the United States would be the richer for it. Yet in this we are improving; once we bought from England $200,000,000 worth of goods a year; now we buy less than one quarter as much, and the amount will be getting smaller until we manufacture all and more than we require.

The development of agriculture in the United States has not been rapid. Indigenous were found here by the first comers, maize, which they called Indian corn; potatoes, which the Irish seized and planted and fed on until the Indian root took the name of Irish potatoes; tobacco, that whilom world's abomination and later world's fascination. To these and other native products were quickly added European and Asiatic plants and animals, horses and cattle by the Plymouth and Dutch colonies, swine from England, the cereals and fruits of central Asia; cotton from Smyrna, though the plant is native to the West Indies and elsewhere; and for farm labor, slaves at first, and later to a great extent labor-saving inventions and farm implements.

A revolution in the raising of grain was brought about by the invention of the McCormick reaper which made it possible for this to become a great wheat-producing country. Agriculture was affected

by other inventions, like that of the cotton-gin by Eli Whitney in 1794, the cotton machinery invented by Hargreaves and Arkwright in the latter part of the 18th century, and the introduction of the power-loom at Waltham and Lowell, which allowed production largely to outrun consumption. Homestead laws and land-grants wore also factors in the progress of agriculture, and also transportation facilities, largely increased by the building of turn-pikes, canals, and railways.

Education in agriculture began as early as 1844, and was attended by the best results. Agricultural schools arose, and chairs of agriculture established in the colleges. An agricultural college was founded at Cleveland. Ohio, in 1855, and one at Lansing, Michigan, two years later. Books on domestic animals, farm products, and husbandry were published, some of high grade, like those by A. J. Downing, and later the proceedings of the Patrons of Husbandry, a society organized by the farmers of the United States in order to secure special legislation and for protection against the frauds of middle-men and the -railroads. Add drainage and manuring to agricultural implements, the manufacture of which grew in round numbers $7,000,000 worth in 18 0 to $75,000,000 worth in 1890, and the great advance is accounted for. Within a period of forty years the manufacture of artificial manures in the United States, particularly of the phosphates advanced from $30,000 to $30,000,000. In like manner, though not in like proportion, developed the dairy system, due to association, cheap transportation, and a better knowledge of the business. The breeds of horses, cattle, swine, sheep, and poultry were improved and their raising increased. The production of cereals has become such that one favorable year s crop will load a train of cars reaching twice round the earth. The cultivation of rice, which industry was almost ruined during the civil war, has regained somewhat of its former prosperity. It costs but one-third as much to raise potatoes here as in Europe; the annual crop in the United States is rapidly approaching 200,000,000 bushels, or about three bushels for every individual. Of tobacco, 500,000,000 pounds are raised, or seven pounds for every person.

Iowa is mostly prairie, though with some wooded hill land, mostly agricultural lands, though with a plentiful supply of minerals. Happy in the embrace of two mighty rivers, the all-discovering Frenchmen saw it first in 1673, and pronounced it good, but not until more than a century after Joliet and Marquette came, settlers from the eastward came percolating through the forests, or paddling up the rivers from the south. A steam-boat was at St. Louis in 1817, and after the beginning of river navigation upon the new lines, new lands were secured to civilization. Corn and cattle flourished here, likewise sheep and swine. Of the lands set apart by the government in the several states for the support of a university, Iowa received on the adoption of her constitution in 1846, 45,928 acres, and the state university was begun at Iowa city. A superb pile of buildings, and well adapted for the purpose, is the Iowa insane hospital at Independence.

Dubuque owes existence to its lead ore, 500 miners settling there in 1833. It is now one of the most important commercial and industrial cities in that section, with rail and river communication to all parts. Among the public edifices are the cathedral, hospital, and convent. Des Moines, the capital of Iowa and center of several railways, has, besides government buildings, state capitol, arsenal, library, and university. Among the extensive manufacturies are woolen, paper, and oil mills, and agricultural implements, iron, machine, and scale works. The academy of Natural Sciences of Davenport, organized in 1867, has good botanical and ethnological cabinets, and owing to the interest and zeal of the ladies of Davenport, it is an active and efficient institution, with frequent lectures and published proceedings. Joseph H. Hampson has probably built more miles of railroad than any other one man. He constructed large sections of the Denver and Rio Grande, Atchison Topeka and Santa Fe, Nogales

and Guymas, Mexican Central, Mexican National, Jalapa and Vera Cruz, Michoacán and Pacific, and the Mexico and Cuernavaca and Pacific.

The vast area of 147,700 square miles once called the Mandan region, and organized as a territory in 1861, was in 1889 divided into two parts. The land is for the most part fertile rolling prairie, the country west of the Missouri being somewhat more broken. Wonderland, it has been called, owing to seemingly strange contradictions to natural laws-as regards climate and productiveness of soil. The Mandans, from whom the country was wrested by the Sioux, or Dakotas, were an intelligent and noble race, as the relics yet remaining in mounds and fortifications prove. There were no white settlers in the country to speak of prior to 1859. A legislature in 1862 met at Yankton, which was made the capital. The two Dakotas, where in 1870 were but 13,000 white men, had a population in 1890 of 512,000, with property valued at $150,000,000. Though the climate is severe in its extremes, yet owing to the dryness of the air it is not so unpleasantly felt as in the east. Rain in the spring is abundant, and this brings the crops well forward. Though the country is eminently agricultural, manufacturies are not wholly neglected, flouring-mills coming first. The cattle industry is large, particularly in the northwestern part, where herds of from 1,000 to 40,000 are frequent. Bismark, the capital of North Dakota, is fast assuming the proportions of a fine city, with government and benevolent and educational buildings and adjuncts.

South Dakota is specially adapted to stock-raising, the rich native; grasses being all that are required to grow cattle from calf-hood to maturity, winter and summer, and fatten them for the market, without the aid of any other food whatever. In like manner horses thrive in the Black hills, never touching grain other than that the grass contains. The large wheat farms of North Dakota, California, and Washington, are conducted on business as well as agricultural principles; most of the work is performed by machinery, the laborers guiding the teams and the foreman guiding the laborers.

Five or ten gang plows, cutting from ten to forty furrows, and drawn by from four to eighteen horses, travel twenty miles a day, aggregating a strip 400 or 600 feet wide at every round. The farms are in size from 2,000 to 10,000 acres, and worth about twenty five dollars an acre, some of the land yielding twenty bushels an acre. Sowing and reaping, like plowing, are performed by great gangs of machines one following another. The merchants of Fargo sell $3,000,000 worth of new farm machinery annually, the returns from the farm supplied being about $25,000,000 worth of grain.

Not only in the Cascade-Nevada mountain states, the Rocky Mountains, and the intervening plains is irrigation all-dominant, but in the Dakotas, Kansas, and Texas it has become a recognized necessity of paramount importance. And notwithstanding all the great works which have been done, notwithstanding the many thousand acres which have been reclaimed, many thousand more await reclamation. For this purpose artesian wells as well as streams are brought into requisition. The gulf-coast country of Texas, and other like areas, need no irrigation. The Lake Superior Canal, which is to connect Minneapolis and St. Paul with Lake Superior by way of the St. Croix and Brule rivers, will be 162 miles long and cost $90,000,000.

Minnesota, though essentially an agricultural state, is not without its other resources. Grain and stock are conspicuous as industries, with meat-packing, and flour and lumber mills. Minneapolis and St. Paul, at the falls of St. Anthony, destined in time to become united in one great midcontinent city, are establishing themselves upon that surest of all foundations for wealth and progress, manufactures. The water-power here is superb, and the flouring and other mills extensive and efficient, some of

them being the largest of their kind in the world. Duluth, near the west end of Lake Superior and one of the eastern termini of the Northern Pacific railway, occupies a commanding position. Conspicuous among its interests are grain-elevators, ironworks, lumber-mills, and stockyards. Great quantities of grain are shipped hence; also lumber, and iron and copper ore from the Lake Superior mines. James J. Hill, one of the wealthiest men of Minnesota, gave archbishop Ireland $1,000,000 for a theological seminary. J. S. Pillsbury donated $150,000 to the city of Minneapolis for a university hall of science.

The prairie plain of Kansas, sloping gently from west to east, possesses the finest agricultural and mineral possibilities, in the direction particularly of grain cotton and cattle. Much the same may be said of Nebraska. The prosperity of both states is assured, the foundations of great wealth in both of them being already laid. Omaha is growing into a fine city, with parks and gardens, beautiful streets and buildings, and all the requirements of a superior civilization. In Kansas is an apple orchard of 100,000 trees, the property of one Wellhouse, who is called the apple king of the world.

Texas, seceding from Mexico in 1837, and joining the United States in 1845, had been prepared for these events by immigrants under Austin and Houston. Moses Austin was at San Antonio in 1820 where he attempted colonization. His son Stephen brought in immigrants and, assisted by Sam Houston, contributed largely toward the Americanization of the country. Texas has large areas of bad land, yet the production of cotton sugar grain and cattle is large, and there are some minerals. Austin, the capital, has the state university, supported by public lands which were reserved by the state for educational purposes on joining the American union. Houston is an important railway and shipping point, at the same time manufacturing cottonseed-oil, fertilizers, cement, and farm implements.

Stephen F. Austin, in carrying out the views of his father, Moses Austin, who in 1820 attempted colonization in Texas, became the founder of that great commonwealth, and gave his name to the capital of the state. He planted a colony in 1821 on the spot where now stands the city of Austin, and was obliged to go several times to the city of Mexico to establish his rights, and on one of these occasions he was imprisoned for thirteen months in the dungeons of the Inquisition. Moses Austin had made quite a fortune in lead mining and the manufacture of shot, but lost it through the failure of the bank of St. Louis. Sam Houston came to Texas in 1832, defeated Austin in an election for the presidency of the new republic after the independence of Texas had been recognized by the United States, and later became governor. The city of Houston was settled in 1836; it has become of late quite a railway and agricultural center. Austin has the state university, several asylums, and other institutions. It has some manufactures, and handles considerable cotton. Among the cattle kings of Texas is A. H. Pierce, who came from Rhode Island when a youth, and after serving as cowboy clerk and proprietor, finally secured some $5,000,000 worth of the world's wealth. Some of the largest tracts of land in the possession of individuals are in Texas. The San Gertrude rancho, for example, formerly the property of Richard King, and at his death falling to his widow, consisted of 1,875 square miles.

Missouri is one of the great and wealthy states of the American commonwealth, possessing as it does every advantage for both agriculture and iron coal lead and copper mining. Corn wheat and tobacco are the staple products, and in the southern part cotton hemp and flax. St. Louis had many parks and squares, and botanical gardens, altogether a beautiful city with picturesque surroundings. The stranger is impressed by the many costly buildings, particularly among the residences, while the railway station is one of the finest in the world. The Academy of Science of St. Louis, organized in

1856, has a museum and library, and covers in its efforts the whole field of science. Kentuckians and Virginians came in 1820, to where now is Jefferson city, capital of Missouri, incorporated in 1839. It occupies a lovely site on the highlands overlooking the river. For prominent buildings there are the United States courthouse, state supreme courthouse, armory, penitentiary, Lincoln institute; and among the manufactories, shoe, broom, wagon, barrel, and machine shops, foundry and breweries.

Section Nine

Chapter the Twenty-Sixth: Southern States

How comes it to Marcenas, that no one lives content with his condition? O happy merchants says the soldier; the lawyer praises the farmer's state; they only are happy who live in the city, cries the countryman. You who surmount every obstacle that no other men may be richer than yourself, what pleasure is it for you, trembling to deposit an immense weight of silver and gold in earth? What beauty has an accumulated hoard? Though your threshing should yield a hundred thousand bushels of corn, your belly will not on that account contain more than mine. What is it to the purpose whether you plow a hundred or a thousand acres? Because it is delightful to take out of a great hoard; because one is esteemed by what one possesses. Happy the man who, remote from business, cultivates his paternal lands with his own oxen, disengaged from every kind of usury! What does the poet beg from Phoebus on the dedication of his temple? What does he pray for, while he pours from the flagon the first libation? Not the rich crops of fertile Sardinia; not the goodly flocks of scorched Calabria; not gold, or Indian ivory; not those countries, which the still river Liris eats away with its silent streams. Let those to whom fortune has given the Calenian vineyards prune them with a hooked knife; and let the wealthy merchant drink out of golden cups the wines procured by his Syrian merchandise, favored by the gods themselves, inasmuch as without loss he visits three or four times a year the Atlantic sea. Me olives support, me succories and soft mallows. O thou son of Latona, grant me to enjoy my acquisitions, and to posses my health, together with an unimpaired understanding. I beseech thee; and that I may not lead a dishonorable old age, nor one bereft of the lyre.

Since the time when in 1513 Juan Ponce de Leon sought for the Fountain of Youth, many have visited Florida for health, and some have found it. Though the Spaniards secured not there perpetual youth and beauty, many of them found death, which is next best if the ancients may be believed. Nor was Ponce de Leon the first to search for a life-perpetuater Tao-tse, the Epicurus of China, began the search for the elixir of perpetual life in the year 540 BC.

The province of Las Palmas, the gulf coast was called, which constitutes the border of the southern states between Florida and Mexico, and thither went from Spain, commissioned as governor, Panfilo de Narvaez, who with 400 men and 80 horses landed at Tampa bay in 1528, and thence marched inland, and along the coast toward Panuco, finally coming to grief. Treasurer and alcalde mayor of this expedition was Alvar Nunez Cabeza de Vaca, who became separated from his company, and was made a slave among the Indians. Escaping after six years of servitude, he made his way westward, in company with three others, these being the first Europeans to cross the continent from the gulf Mexico. With Cabeza de Vaca were fifteen others, to which number the expedition of Narvaez was ere long reduced by starvation and murderous savages, who shared his wanderings, until their number was reduced to four, and thus the Europeans were made to taste the delights of slavery in what were later the southern United States and which the Europeans filled with the black slaves from Africa.

Possession was taken for Spain near where later was established St. Augustine, which enjoys the reputation of being the oldest city built by Europeans in the United States, or indeed in America, with all the benefits accruing from that distinction, whatever they may be.

Pamphilo de Narvaez was in the vicinity in 1528, and Hermando de Soto in 1539, the latter crossing the country to the Mississippi river, where he died. Frenchmen under Laudonniere landed there in 1562, and were promptly hanged by Spaniards under Menendez, who in turn were as promptly hanged by other Frenchmen, other Spaniards coming later. Then in 1586 appeared the English under Francis Drake, the greatest pirate of all, who frightened away the people, took what he liked and destroyed the remainder, sailing away to Virginia. Such is history. Though the bird of evil omen had flown, there were still English to fight in Carolina, where Walter Raleigh had attempted colonization in 1585 and failed, preferring Virginia. And so for a century or more, as drums beat and cannon belched between French Spanish and English in Europe, the echo was heard in America, rousing to petty conflicts. James Oglethorpe, who came from England to make an asylum for insolvent debtors and persecuted Christians, planted a colony at the Savannah in 1732, and called the country Georgia, from the English king then reigning. He soon found time to fight the Spaniards in Florida, while his people stocked their farms with African slaves. Carolina was divided into north and south in 1729, when the population was 13,000. The South Carolina settlement of English colonists on Ashley River in 1670 moved ten years later to the present site of Charleston. Slavery in Virginia dates from 1619 when a Dutch man-of-war, sold at Jamestown 20 Africans, ten years after the appearance there of the London company. William and Mary College was founded under royal patronage in 1693. For over a century and a half the territory of Virginia extended from the Atlantic Ocean to the Mississippi river, and was later divided into five states. As for Maryland, Lord Baltimore held the country for the crown of England as part of Windsor manor, paying a yearly rental therefore of two Indian arrows.

After LaSalle's unsuccessful attempt at colonization in Louisiana in 1684, came Iberville in 1700 and planted a French colony on the river below where now is New Orleans. And the city today is still half French. Including all the posts on the Mississippi river and its tributaries, there were not over 500 Europeans in the whole Louisiana country as then known. The territory below the mouth of the Illinois was granted by the king of France to Antoine Crozat, who appointed Cadillac governor, under whom and his successors it was mismanaged until John Law appeared, and obtained the country from Crozat for his bubble scheme, known as the Western company.

Iberville's brother, Bienville, was appointed governor, and New Orleans founded, 2,500 white persons and 1,800 Negro slaves arriving in the years 1718-1721. The Western company, with East India company grants, had become the India Company, and notwithstanding the failure of Law the colonists prospered. With limitless lands, rich soil, warm climate, and plenty of slaves, it would have been strange otherwise. In 1762 the province was transferred from France to Spain; in the year following the portion of Louisiana cast of the Mississippi river was ceded to Great Britain, falling for the most part in 1783 to the United States, Spain still retaining possession of the west bank. In 1800 Spain ceded her interest in the Louisiana territory to France and in 1803 France sold all to the United States for $12,000,000, and $3,750,000 French claims.

De Soto made a search for gold in Alabama in 1541. In 1711 the French planted themselves on the present site of Mobile. Arkansas was early occupied by the French, their chief settlement being on the site of the present Little Rock, on the Arkansas River. Pierre Laclede Liguest selected the site of St. Louis, where in 1764 Auguste Chouteau planted a village. Tennessee at first was supposed to be part of the colony of North Carolina, but when the English crossed the Appalachian range, they found French settlers on the Tennessee, Ohio, and Cumberland rivers. The British Fort Loudon was erected in 1757 on the Little Tennessee River, but was taken by the Cherokees. William C. C. Claiborne, sent

by President Jefferson to the Mississippi as governor in 1802, managed the heterogeneous elements composing the country with great ability during the transfer of Louisiana in 1803. Kentucky was once part of Virginia. John Finley led a party there from North Carolina in 1767. Daniel Boone came with a party from North Carolina in 1769, and the country was set off as a county of Virginia. There was a settlement at Harrodsburg in 1774. Daniel Boone is called the founder of Kentucky. He was twice captured by the Indians in making his preliminary survey, prior to moving there with his own and other families, and building a fort at Boonesborough, on the Kentucky river. He was afterward in several Indian battles, and found trouble in getting a good title to the lands he desired.

De Soto found the Cherokees, a noble race, occupying the upper valley of the Tennessee in 1540. Later they had homes, cattle, horses, farming implements, and slaves. King Oganasdoda quite impressed the Europeans during a visit to England. The Creeks lived in Alabama and Florida, coming originally out of the earth, as they say of themselves, and in which doctrine they may have been nearer right than they knew. They were a powerful people, their influence being felt at one time from Louisiana to the Carolinas. The Carolinas were inhabited by the Catawbas, and though numerous and warlike, they were always friendly to the settlers, assisting them against the Tuscaroras and Cherokees.

The Chickasaws of the Mississippi once numbered 10,000 warriors. They fought the French and the Iroquois, uniting with the Natchez for that purpose. Obtaining large land reservations from the government, some of them laid out extensive cotton plantations, and buying negroes became aristocrats,—the red savages owners of black Africans brought hither originally for this purpose by the white men of England and Holland.

The Choctaws, on the Mexican gulf, gave De Soto a warm reception at Mavilla in 1540, but they did not disdain Spanish aid under Tristan de Luna in 1560 against the Natchez. After a that they joined themselves to iii every new comer, first as allies of the French when they settled Louisiana, then siding with the English, and finally espousing the cause of the United States, receiving in return security in the possession of 20,000,000 acres of land west of Arkansas, and 52,225,000 in money, with as many negro slaves as they cared to possess. The Natchez affected a native culture superior to that of their neighbors, claiming kindred to the civilized Nahuas and Mayas of Mexico and Central America. The Seminoles, numbering 3,899 in 1822, and occupying villages from St. Augustine to the Apalachicola, owned 800 negroes, which they lost by the civil war; yet in 1870 their personal property was valued at $237,000. By act of congress of May 28, 1830, the Cherokees, Choctaws, Chickasaws, Creeks, and Seminoles, living in Tennessee, Georgia, Mississippi, Florida, and Louisiana, also the remnant of the Iroquois, or Six Nations, the Wyandottes, Senecas, and Shawnees, in short all the Indians yet remaining east of the Mississippi, were sent to the unorganized portion of the Louisiana purchase west of the Mississippi river, later known as the Indian Territory, Kansas, and part of Nebraska. To the Indian Territory were afterward conveyed the lowas, Poncas, Ottoes, Delawares, and Kaws of Iowa, Nebraska, and Kansas; also the Sacs and Foxes of the upper Mississippi, the Modocs from Oregon, in fact all who stood in the way of those having the power, and claiming mental or moral superiority.

Conspicuous from the earliest times in Maryland has been the name Calvert, being the name of Lord Baltimore and his descendants. George Calvert, the first Lord Baltimore in America was first given by his master, James I, the province of Avalon in Newfoundland, but changed before taking possession to Maryland, in the North of Virginia. Upon the death in 1632 of George Calvert, his son Cecil took

measures to carry out his father's plans with wisdom and fidelity. Honest in his dealings, and free from that fiery fanaticism which characterized the settlers from whatever part of Europe, he paid the Indians for their lands, and so preserved peace and good will without and within the borders of his settlement. If all who came hither had been of like quality of manhood, how differently would read the history of our country! Charles Calvert, the third Lord Baltimore, married Jane Sewall, and went to live near the mouth of the Patuxent River. After graduating at Harvard, George H. Calvert, fifth Lord Baltimore, returned to Maryland and devoted himself to letters, publishing several prose works and volumes of poetry. The Carrolls of Maryland may be here mentioned. In 1688 Charles Carroll, formerly secretary to Lord Powis, came to Annapolis as agent of Lord Baltimore. Being prudent, and a good business man he secured large tracts of land on the Patapsco River, and left very wealthy his son Charles, who married Elizabeth Broke. It was Charles, the son of this Charles, who called himself 'of Carrolton,' and so signed the declaration of Independence. He married Mary Darnell in 1768, and at the beginning of the revolution was reputed the richest man in the colonies. Charles Carroll, his son, married the daughter of Benjamin Chew, chief justice of Pennsylvania, and the great-grandson of Charles Carroll of Carrollton was John Lee Carroll, governor of Maryland.

William Fairfax, son of Henry Fairfax of Tolston, was the first of the family to come to America. He arrived in 1717, was collector of customs at Salem for a time, and then went to Virginia in 1734 to build Belvoir on the Potomac as agent for his cousin Thomas, sixth Lord Fairfax, who had inherited from his mother, daughter of Governor Culpeper, of Virginia, 6,000,000 acres of land. A grant of land and money, £2,000 out of the quit rents of the colony, was obtained by Virginia from the home government for William and Mary College. Scotch thrift resulting in great wealth attended the efforts in Virginia of Robert Dinwiddie, lieutenant-governor in 1752. Though his reputation for honesty and integrity was none too good, he was yet the patron and friend of George Washington, though the latter was often annoyed by his impolitic measures. John Washington, great-grandfather of George Washington, settled himself in Virginia in 1657. Augustine Washington, father of George, died when the son was twelve years old, the estate now known as Mount Vernon going to his brother and guardian Lawrence, who married a daughter of his neighbor Lord Fairfax. In 1748, being then sixteen years of age, George Washington was appointed surveyor of the immense Fairfax estate, and began speculating in western lands.

After escaping with his life from Braddock's defeat, and upon the death of his brother Lawrence, he became possessor of Mount Vernon, married Martha, the wealthy widow of John P. Custis, and died childless in 1799. The father of James Madison was a rich Virginia planter of high social position. So it was with James Monroe, who studied law with Thomas Jefferson, whose father was obscure and illiterate. Slave property once constituted an important item in the wealth of the country. Negro slaves were landed at Jamestown, Virginia, in 1620, and soon all the colonies had slaves. With the advance of mind and morals in due time came emancipation by the states, Pennsylvania and Massachusetts in 1780; Rhode Island and Connecticut, 1784; New Hampshire, 1792; Vermont, 1795; New York, 1799; New Jersey, 1704; Maine 1819. The question being settled prior to their organization, Ohio, Indiana, Illinois, Michigan, Wisconsin, and Iowa never had slaves. Emancipation was effected in the southern states by a law passed by congress in 1865 during the civil war. Brazil's way was the best, which made free every child of a slave born after a certain date.

Jefferson, in his Notes on Virginia, speaks of a little gold found on the Rappahannock, and lead, intermixed with silver, on the Kanhaway. The ore was hauled to the river, taken across in canoes and

again by wagons to the furnace and pounding-mill, which were distant one mile from the mine. The same writer also speaks of the lead mines in Cumberland, below the mouth of Red river and those of Mississippi above Rock River. James River were copper mines and also “on the Ouabache below the upper Wiaw." Many ironworks were then in operation on James River and in the mountains, as well as Pennsylvania, Maryland, and Ohio.

Richmond, the historic capital of Virginia, stands on a group of hills, and is full of monuments and other objects of interest. Hundreds of manufactories, driven by power from the fall of the James River, send forth flour, paper, fertilizers, tobacco, and articles in iron. Norfolk has a spacious harbor and all the appurtenances of a fine commercial city.

Many minor resources were found on the American seaboards,—oysters in Chesapeake bay, lobsters and cod on the New England coast, salmon in the rivers flowing into the Pacific, and sponges on the Florida reef. The city of Key West, standing on a small coral island the southernmost land in the United States, occupies herself, next after cigar making, in sponge fishing, in which industry 350 craft of all sizes up to a 50-ton schooner are engaged. All along the western coast of Florida, in the waters of the gulf, grow the fine sheep's wool, or bath sponges, while at Tampa bay are found the large Anclote grass sponge. With an iron hook, having three long curved teeth and a slender wooden handle from 30 to 60 feet in length, the sponge is torn from the depths of ocean, the operator having as an aid to his work a water-glass, consisting of a wooden bucket with a glass bottom, sunk an inch or two below the ruffled surface, and with which through the clear water the bottom may be distinctly seen.

The fishing is from a small boat, which when filled is emptied into a schooner lying at anchor nearby, which in turn discharges her cargo ashore, where it is thrown into a pen ten feet square constructed for the purpose in shallow water, there to lie for several days while the contents of the cells decompose. The sponges are then beaten with bats until cleared of all animal matter, when they are washed, dried, bleached, baled, weighed, and sold at auction, sales being held at the wharf every day at three o'clock. One half of the proceeds go to the fisherman, and one half to the owner of the vessel, who furnishes all that is required for the trip. The sponge king of Key West is A. J. Arapian, whose annual sales are about $500,000.

The soil of the southern states is as a rule good and well watered, the leading products being corn, cotton, tobacco, barley, rice, with some wheat, sugarcane, rye, hemp, hops, and beans; yet almost every plant on earth will grow somewhere in this favored region. The wild animals of the Gulf States are for the most part small, reptiles and birds large and abundant, many of the latter of brilliant plumage. In the swamps of Georgia is much fine timber, cedar, oak and hickory, walnut, maple and spruce. The larger quadrupeds are found northward. Alligators and turtles are conspicuous. The blue-grass region of Kentucky is noted for its fine stock, particularly horses. At Spring Station, twenty miles from Lexington, is the famous Woodburn breeding farm of A. J. Alexander. Henry Clay's monument is one of the ornaments of Lexington, a city of beautiful aspect and busy industry, having tobacco, copper, hemp, and wheel works, distilleries and flouring-mills. Louisville has a large tobacco trade, besides heavy handlings of pork, leather, flour, and farm and other implements.

The Crittenden family have been among the most prominent in Kentucky during the past century. John Crittenden, a major in the revolutionary war, came from Virginia. His eldest son graduated at William and Mary College and became a noted lawyer and statesman. Two sons of John J. Crittenden were officers in the civil war, one on either side. The Blair family have been prominent in public life or

as wealthy planters, for a century or so,—Francis P. Blair of Virginia, of Hampton Roads conference fame; his son F. P. Blair, of Kentucky, army general and statesman, and Montgomery Blair, also born in Kentucky, lawyer and prominent member of Lincoln's cabinet, all being men of considerable ability and note.

Forests originally covered Kentucky, Georgia, North Carolina, and other states, considerable areas of which are still standing. Forestry may be profitably studied at Biltmore, the estate of George W. Vanderbilt in North Carolina, consisting of 5,000 acres devoted to forest culture. Near Biltmore forest is Pisgah forest, comprising 92,000 acres, where besides extensive lumbering operations are game preserves and outing grounds. At Asheville Mr. Vanderbilt has built a residence far exceeding in beauty and grandeur most of the palaces of the old world.

Kentucky, Virginia, Arkansas, Alabama, North Carolina, and Tennessee abound in coal and iron, and almost all the states are rich in minerals of some kind. Virginia, Georgia, and North Carolina have gold, silver, and copper, and in some places gems. Since the discovery of gold in North Carolina in 1819, many gold and copper mines have been worked, with returns of over $20,000,000. Alabama and Tennessee are second only to Pennsylvania in the production of pig iron. The manufactures of this section are iron, tobacco, leather, cotton and woolen fabrics, whiskey, and all the many local requirements of commerce, domestic life, and industrial progress. Maryland has wealth in fruit as well as in oysters. Baltimore in early times had a large shipping trade, her commerce extending to every part of the globe. The oyster town of Crisfield, on the Chesapeake, is built on oyster-shells and sends away for the season, September to May, besides crabs and fish, 25,000 barrels of shell and 300,000 gallons of shucked oysters. West- over, 16 miles away, ships whole trains of berries; and thus one may go the length of the land and find some profitable specialty in every place. In this vicinity are the Arlington, Workingtown, and Westover mansions, the last being of English brick, now owned by Samuel Wilson.

South of latitude 37 degrees and east of the Rocky mountains are found the more profitable cotton fields of the United States, although cotton is grown outside of these limits. It was at one time held that without slave labor this industry could not be made profitable, but it has been proved a fallacy. There are in all not far short of 500 mills whose annual product approximates to $80,000,000. Sugarcane was brought from the West Indies to the United States and planted on the Mississippi above New Orleans in 1751. The growth of the industry was slow, the cane being at first ground by cattle, steam-grinding beginning in 1822. In 1747 it was discovered that certain beets contained about six percent sugar, and a beet-sugar factory was established in France in 1810. Not very successful were the attempts at first made in the United States, but in 1839 at Northampton, Massachusetts, were made 1,300 pounds of beet sugar, and a factory was set in operation at Chatsworth, Illinois, in 1863. The Alvarado Sugar company was organized in California in 1870, and later works were established in Los Angeles county and elsewhere. Florida is a level country, part swampy, less than one half the state being available for cultivation. Products here are much the same as in the dry lands of California, being chiefly oranges, figs, pineapples, and walnuts. Forests abound. The prominent industry of Key West is the manufacture of cigars, mostly from Havana tobacco. Corn also is raised in Florida, and potatoes abound. Tallahassee, the capital of the state, is a garden embedded in flowers. Henry Disston, of Florida, made some millions selling his own saws; his son Hamilton increased his inheritance to 1,000,000 acres of land, a $450,000 sugar mill, ten miles of private railroad, and other

property. Jackson, the capital of Mississippi, is a well-built and beautiful city. Natchez has extensive cotton mills.

The scheme of John Law to develop the resources of the Louisiana country, which arose in 1717 and collapsed in 1720, was a great affair. It was given out at the time that the country was enormously rich in precious metals, and everything else that was precious. Incorporated as the Company of the West, with 200,000 shares of 500 livres each, and exclusive privileges of trade and coinage, afterward taking the name of the Company of the Indies, shares rose to an enormous premium. Paris was thronged, and Law's house besieged by eager applicants for the magic paper which at any price was to make them immediately rich; but when some of the cooler ones sought to realize on their shares they found the gold wanting, the bubble burst. Law fled from the country and died in Venice while eking a miserable existence by gambling. The Louisiana state lottery was one of the largest institutions of the kind in the world, its net annual profits being enormous. The drawings used to take place in the Charles Theater, New Orleans, Beauregard and Early presiding amid much ceremony, and with salaries larger than they received as generals. For some time public sentiment was against it, being regarded as a disgrace to the state, in some such way as polygamy was held to be a disgrace to Utah. The $40,000 license paid to the state was not deemed sufficient to cover the infamy; but the final blow was given by the postmaster-general, Wanamaker, who in 1890 forbid the use of the mails for lottery purposes outside the state of Louisiana, and the charter was not renewed. Thus expatriated, the great game sought a home in Mexico, but the government there had the welfare of its own lotteries to look after. Turned from the doors of Colombia and Nicaragua as well, it finally found refuge in Honduras, in consideration of $20,000 a year and 20 percent of gross returns, the base of operations in the United States being at Tampa, Florida. W. L. Cabell of Texas, and C . J. Villere of Louisiana presided at the drawings at Puerto Cortes, Honduras. Venezuela may next be asked to open its doors to the Louisiana lottery. The governor of Louisiana, Nichols, on the 7th of July, 1890, vetoed a bill passed by the local legislature accepting an offer of $1,000,000 to the state by the Louisiana Lottery company for the privilege of continuing business as in times past. This great gambling institution claimed to have sold tickets in five years to the amount of $30,000,000, and to have paid out in prizes $20,000,000, thus drawing into the pockets of the managers from those of the people, mostly the poor and thoughtless, $10,000,000. The Kentucky state lottery, which originated at Frankfort in 1838 in an attempt to raise money in this manner for schools and to construct waterworks, after passing through several phases of existence under this and other names, as the Commonwealth cash distribution company, and the Frankfort lottery, finally disappeared.

Unique scenes in and around New Orleans are the cotton levee, the French market, the street of the dead, Jackson square, the cypress swamp, old plantation homes, cane and cotton fields and sugar houses. The opera has great attractions, particularly with the French and Creole population. To the University of Louisiana Paul Tulane gave $2,000,000, and the name was changed to Tulane University. A Louisville lady gave this institution $200,000 for a college for girls, and Miss Annie Howard erected the Howard memorial library. New Orleans does a large business in fertilizers, besides rice-cleaning and sugar-refining, and leather and tobacco works. In southwest Louisiana is a farm of 1,500,000 acres, with railroads, steamboats, and telegraph lines, the property of a northern syndicate.

Tennessee was originally held to be part of the territory granted by Charles II to the colony of North Carolina. The French were there, however, when English settlers first crossed the Appalachian

Mountains, their claim to ownership being somewhat mixed with that of the Spaniards. All this was settled in due time by the final supremacy of the English. David Crockett, born at Limestone in 1786, assisted with other Tennesseans in achieving the independence of Texas. The manufacturing resources of Tennessee are very great; cotton and woolen mills have increased many fold in number, while grain-growing and grist mills have assumed large proportions.

Nashville, the capital, has the usual state buildings, and is an educational center, as in addition to the Vanderbilt University, elsewhere mentioned, there are the Central Tennessee College, and the Fisk and Roger Williams universities. Cotton and tobacco stand first among industries, though among manufactures are also distilleries, and furniture, oil, paper, and machine works. Memphis is a beautiful city, filled with fine public and private buildings. Its manufactories are in oil, spirits, flour, and machinery, while the chief commerce is in cotton.

The District of Columbia consists of 64 square miles under the direct control of congress, the municipal affairs of Washington and Georgetown being regulated by three commissioners. Since Washington laid the corner stone of the capitol in 1793, the government has spent $70,000,000 on public buildings and grounds. Besides the many schools and churches, there are two universities, the Columbian, Baptist, and the Howard for freedmen. The Washington monument is 555 feet high and cost $1,500,000. The dome of the capitol ranks fifth in height and fourth in diameter of all the domes in the world. The bronze doors at the east entrance cost $28,000; the six large paintings in the rotunda cost $74,000. Senator Sherman and others became quite wealthy buying city property before the improvements. The Cumberland and Georgetown Canal is the oldest in the country. Side by side with the railway the telegraph has made its way in the United States. Since the experiments of Joseph Henry in 1827, later secretary of the Smithsonian Institution, and the inventions and operations of Morse, the little line from Washington to Baltimore, built in 1843, has been extended in every direction, until it now reaches many times around the world. Gradually the rival lines, east and west, consolidated, until now the business is principally in the hands of the Western Union and the Postal, the former having several thousand miles of wire, with 21,000 offices, and a capital stock of $80,000,000.

Since 1840 the American Association for the Advancement of Science has had being with migratory proclivities, geologists and naturalists meeting at stated intervals and places, as in Boston in 1847, and Philadelphia in 1848, with Massachusetts state incorporation and a permanent secretary at Salem in 1874. Somewhat similar associations were the National Institution for the Promotion of Science and the Useful Arts, organized at Washington, in 1840, by act of congress, for the purpose of collecting scientific material wherewith to found a national museum, and since defunct, and the National Academy of Sciences incorporated at Washington by congress in 1863 in order to solve scientific questions laid at its feet by government. But most important of all is the Smithsonian Institution, founded by act of congress, in 1846, in accordance with the terms of the will of James Smithson, an English scientist, who died at Genoa in 1829, bequeathing to the United States a sum which when received by the government in 1838 amounted to $515,169, "to found at Washington under the name of the Smithsonian Institution an establishment for the increase and diffusion of knowledge among men." By 1881 the endowment had increased to $720,000, and it was determined to limit its increase to $1,000,000. In order to receive and properly care for the material collected by the Wilkes exploring expedition, the National Museum was instituted in 1842, but this museum was in 1858 placed under the care of the Smithsonian Institution. Baltimore has many religious and

educational institutions, among them the University of Maryland, the Maryland Academy of Science, Baltimore College, and Johns Hopkins hospitals and university. It is called the monumental city, by reason of its monuments,—one to Washington erected on ground given for the purpose by John E. Howard in 1815; one to Edgar A. Poe; others called Battle, Wildey, and Wells and McComas monuments . Johns Hopkins, farmer lad, grocery clerk, storekeeper, bank president, and founder in Baltimore of the institution which bears his name, and to which he left $7,000,000, was born in 1795 of Quaker stock, and was assisted on his road to fortune by a Quaker uncle. Mary E. Garrett gave Johns Hopkins University $350,000 for a woman's medical department. In 1853 was organized the Elliot Society of Natural History, of Charleston, and the same year the New Orleans Academy of Science.

Not only a wealthy planter, but a man of political influence in South Carolina, and regarded by friends and enemies alike with consideration and respect, was Joseph Alston, who in 1800 married Theodosia, the beautiful and accomplished daughter of Aaron Burr.

Alston was afterward governor of the state. At Columbia, the capital of South Carolina, four railways come together. The Congaree River has a width of 1,800 feet and a fall of 36 feet within city limits. The town as laid out is two miles square, and there are present the buildings of the state and United States, opera-house, college, university, and agricultural and mechanical college for whites, while at Orangeburg is the Claflin University for blacks. Charleston, one of the principal southern seaports, receives and sends forth quantities of cotton, rice, timber, and manufactured phosphates for fertilization, foreign trade being mostly with the West Indies, England, and Germany. There are wharf facilities for 200 vessels. Savannah, Georgia, the other chief seaport of the southern seaboard, has many historic buildings and statues, among the latter being one of General Green, and of Liberty in memory of Count Pulaski, who fell here in 1779. There is a Trade and Cotton exchange, and commerce and manufactures in iron wood, flour, rice, cotton, paper, and furniture. Raleigh, the capital of North Carolina, has a fine granite state-house and other state buildings; also manufactories of iron articles, machinery, cars, carriages, and agricultural implements. Atlanta, capital of Georgia, and like Richmond and many other southern cities made historic by the civil war, lies at the junction of five great valleys, and is plentifully supplied with railway facilities. A cotton exposition was held here in 1881. Montgomery, capital of Alabama, has likewise the best railway facilities, with state and federal buildings, and the usual adjuncts of commerce and manufactures. The same may be said of Mobile, the chief city and seaport of Alabama.

The progressional paralysis brought on by the civil war lasted for thirty years, and the cure cost many millions besides. The assessed value of property in 1870 was $2,100,000,000 less than in 1860, while in 1890 it was about the same as in 1860. In the north, however, the increase of property values during the decade from 1860 to 1870 was over $4,000,000,000. And the advance in the south since 1890 has been phenomenal. Though the Negro as a rule is by nature lazy and improvident, yet some of them make money. There are quite a number in the south worth from $5,000 to $20,000, and one family in Galveston, Texas, are said to have property worth $400,000. The Montgomery brothers of Mississippi have a large plantation, and raise a great quantity of cotton every year. The black men of Georgia are assessed about $40,000,000. Thus we see that development in the southern states has been very great during the last two decades of the century. In the two previous decades, from 1860 to 1880, the total wealth of the south depreciated at least $2,400,000,000. But from 1880 to 1890 the census report shows an increase in assessed values of $1,815,000,000, which signifies an increase in

actual values of $4,000,000,000. Of the 500,000,000 acres of land in the southern states, 100,000,000 acres were under cultivation, paying a profit on investment of 24 percent per annum, as against 12 percent in other states. More than half the cotton in the world is produced here, and the grain crops are now nearly equal to the cotton crop. Since 1880 the output of coal has increased from 3,000,000 bushels to 30,000.000 bushels. The coal fields of the south cover 60,000 miles, seven times more than Great Britain has, and as much as is in Russia, Germany, France, Belgium, and Great Britain combined. A cooperative town company was organized in 1891 under the laws of Tennessee, with headquarters at Washington, authorized capital $10,000,000. United States senators and secretaries were among the directors, and the stock was at first rapidly taken up, but the scheme proved not successful. Cooperation and profit sharing were to be the principal features in developing a manufacturing city in the south, and a large town site was purchased for that purpose at Elizabethton in northern Tennessee.

During the war with Spain the southern states came again into prominence as a military parade ground, lying as they do contiguous to Cuba, and mar the scene of operations. Particularly was this the case in the vicinity of Chattanooga, where troops were massed, and at Key West, the point of departure for many of the warships and squadrons.

The Union Station of St. Louis stands conspicuous as one of the great works, not only of Missouri but of the midcontinent states. A score and more of railway lines converge to this point, and use this structure in making their exchanges, to the great advantage of both passengers and carriers. The building was erected in 1894 on ground which once was the bed of Lake Chouteau, but reclaimed at great labor and expense. The headhouse, train-shed, power house, auxiliary buildings, interlocking plant, and operative department, afford ample facilities for conducting the large traffic which centers here, and offices for the transaction of business. Besides the usual waiting, luncheon and dining rooms, there is a hotel proper of a hundred rooms conducted on the European plan. The erection and management of this elegant structure is under the Terminal Railroad association, among the early presidents of which was Julius S. Walsh, one of the foremost citizens and among the most enterprising men of St. Louis. A native of St. Louis, he attended the university, studied law, and was admitted to practice. Early in his career railways attracted his attention, first in 1870 the street railway system of St. Louis, and later in most of the lines that ran out of the city. In these as well as in banks and trust companies, he was conspicuous as president or director, and so became a powerful factor in the progress of the city and of the state.

A prominent railway president was D. B. Robinson, native of New England, and his early training of a kind conducive to the promotion of steady habits, sturdy character, and that kind of industrious application which wins success in any calling. He received a public school education, which ended when he was sixteen years of age, and his business career began when he was eighteen. His first employment was with the Vermont Central Railroad company in the capacity of day laborer. Six months of faithfulness and efficiency won for him the position of check clerk in the freight office, and later he was made cashier. In 1868, he went to California, then to Mobile, filling important positions, and was finally called upon to undertake the building of the Sonora railroad. This road was started from Guaymas, Mexico, and built toward the United States in connection with the Santa Fe system. In the prosecution of this work, Mr. Robinson employed the few Indians and Mexicans who could be induced to work, and added to his force by bringing 200 Negroes from the south. Serious embarrassments confronted him at every turn. Construction material had to be shipped by sailing

vessel round Cape Horn. The natives of Sonora were in the main unfriendly to the enterprise, and obstructed his progress in various ways. Despite the obstacles which had to be overcome, Mr. Robinson completed the work. From 1883 to 1886, he was in charge of the construction of the Mexican Central railway, and then returned to the United States to become general manager of the Atlantic and Pacific. He organized the Santa Fe, Prescott and Phoenix Railway Company, and was made its president in 1888, and constructed the line from a connection with the Atlantic and Pacific railroad at Ash Fork to Phoenix. In 1887 he became general manager of the Colorado Midland railway, a position which he retained until 1890, when he was made president of the San Antonio and Aransas Pass Railroad Company. In 1892, a broader field opened for him in connection with the Santa Fe system, and he left the Texas road which he had managed for two years to become vice-president of the great corporation which owns and operates 9,900 miles of railway. In 1896, he was offered and accepted the presidency of the St. Louis and San Francisco Railroad company, and this connection brought him to St. Louis, which has since been his home. The Sonora and Mexican Central railroads with the construction of which he was prominently identified, were the pioneer railway enterprises of Mexico, the first highways of commerce between the two Republics, and the Colorado-Midland was the first standard-gauge railway built over the Rocky mountains, and one of the most remarkable engineering feats which has been attempted in the history of American railway construction.

Perhaps the most conspicuous figure in railroad affairs in Texas is E. H. R. Green, who acquired his education in New York and Vermont, graduating in the profession of law. At the age of 21, the Ohio and Mississippi Railroad elected him a director, giving him a splendid opportunity for the study of railroad problems. In 1893, he visited Texas and purchased a branch of the Houston and Texas Central Railroad, one of the most important transportation lines in the state, formerly controlled by his mother.

The same year he took charge of the Texas Midland railroad, and was elected its president, thus becoming the youngest railroad president in the United States. He has one of the most elegant private cars in the world, equipped throughout with the latest devices for comfort, and lighted by electricity; he can well afford to do this, for instead of being tedious the travel is a luxury. This car, to a great extent, is his home and is so arranged that in it he transacts, with his private secretary, much of his private, railroad, and political business. As a politician, Mr. Green has been very successful. He was elected state chairman of the republican party of Texas in 1896. At that time the total republican vote of the state was only fifty-five thousand, but three months afterwards, through his untiring energy and devotion to the cause he represented, the vote increased to one hundred and sixty-two thousand.

One of the directors of the St. Louis Trust company, vice-president of the Missouri Electric Light company, president of the Conduit company, a director of the Laclede Gas Light company, of the Edison Illuminating company, of the Phoenix Carbon company, and of the Granite Mountain Mining company, is J. C. Van Blarcom, who is also a member and president of the Cuivre Hunting club, a member of the St. Louis, the Country, the Noonday and Mercantile clubs of St. Louis, and also a member of the Union, and New York clubs of New York city. He is one in whom St. Louis is proud to recognize as one of its prominent citizens. He was born and educated in New Jersey, and started out in business there, later entering the Bank of Commerce in St. Louis as head accountant, soon becoming cashier.

Charles D. McLure, whose name is known and respected far beyond the confines of the city of St. Louis, ranks among the descendants of revolutionary heroes in the Missouri Society of the Sons of the American Revolution, as the great grandson of Richard McLure, who gave over seven years of his life to the cause of his country in the war of independence. Richard McLure, a native of Pennsylvania, in 1775, enlisted at Carlisle, in Captain William Hendrick's company of the Pennsylvania Rifle Battalion under command of Colonel Thompson. His company left Carlisle in July, 1775, under orders for Cambridge, Massachusetts, where they arrived in August, and joined the expedition against Quebec under Colonel Benedict Arnold. Arriving before Quebec in December they encountered the enemy on the thirty-first of that month, when Captain Hendrick was slain and his men taken prisoners. In August, 1776, Richard McLure, with other prisoners, was exchanged and at once re-enlisted under General Wayne, with whom he served in Georgia, participating in the victory at Sharon and the following triumphal entry into Savannah. He remained with the colors throughout the whole of the struggle, and when the arms of the patriots were crowned with victory, received an honorable discharge at Philadelphia after over seven years' service. He afterward settled at Wheeling, of which place he became an honored citizen. His son, H. D. McLure, married Margaret Hills, from whom descended William McLure, father of Charles D. McLure. W. R. McLure's personality was well known in St. Louis, with which city he became prominently identified, and where he died in 1852. He married Margaret A. E. Parkinson, descendant of a Virginia family, who was president of the Daughters of the Confederacy. Parkinson McLure, brother of Charles D. McLure, served in the confederate army, and in 1863 found a soldier's grave. Charles D. McLure was born in Carrollton, educated in St. Louis, and at the age of fifteen years went to the far west, where he engaged in the freighting business in Nebraska, Colorado, Utah, and Montana. His knowledge of human nature and judicious business methods enabled him to handle men and property successfully and profitably, and when, later, mining attracted his attention as offering a larger and better field for his operations, success still attended him. He was the originator of the Granite and Bimetallic Mining and Milling companies of Montana, of which he was one of the principal owners, and was largely interested in many other important enterprises. In 1881 he returned to St. Louis, where he became director and vice-president of the Lindell Railroad Company, and director of the Bank of Commerce of St. Louis, and of the St. Louis Trust company. Ranking amongst the wealthy citizens of the state he is to be honored as the architect of his own fortunes, the fruit of which he enjoys with a conscience untroubled and a character unblemished, and his success in life has redounded not only to his own credit but to the welfare of others. During the exciting times incident to the civil war, Mrs. Margaret McLure was arrested and held a prisoner in her house, in St. Louis, until 1863, when she was banished, with a number of others, and sent to Columbus, Mississippi, by flag of truce. Her reception there, and the kind hospitality of friends in the south, became one of her most pleasant memories. After the fall of Vicksburg, the parole camp of the confederate army was on the plantation of General Nathan Bryan Whitfield, in Demopolis, Alabama, and when the men of the First Missouri brigade heard of Mrs. McLure's banishment. Lieutenant Hall was dispatched to Columbus to bring her to camp.

When the war ended she returned to St. Louis, and subsequently went to Montana, to her son, Charles D. McLure, who was then prospecting in the Granite Mountains. Removed from all intercourse with the world, she became interested in the miner and his life, and was soon enshrined in their sturdy hearts as a friend in sickness and health. Her eyes used to sparkle as she spoke of the glories of her mountain home.

A fine example of a St. Louis merchant was William L. Huse, a native of Danville, Vermont. His father was John Huse, a descendant of one of the early colonists of Massachusetts, who settled at Newburyport about 1635. His ancestors were numbered among the revolutionary patriots, his maternal grandfather. Ira Colby, fighting in the battle of Ticonderoga under Ethan Allen. When William L. Huse was seven years of age, his parents removed to the little city of Chicago, which had then a population of less than five thousand. There he grew up, obtaining a good English education in the public schools, and fitting himself for commercial pursuits by taking a course in one of the pioneer commercial colleges of that city. When he was seventeen years old he became a clerk in the grocery house of H. G. Loomis, of Chicago, and had three years of practical training for the business of merchandising in that capacity. He then became connected with the forwarding and commission house of Isaac D. Harmon and company of Peru, Illinois, and was given charge of a steamer engaged in the Illinois river trade. That he had a genius for trade and that he had learned early in life the lessons of industry and economy, conducive to thrift and prosperity, is attested by the fact that, in 1858, his accumulated earnings enabled him to purchase the boat of which he had charge, and enter into the transportation business on his own account. When he was twenty-five years of age, he owned three steamers plying on the Illinois river, and a year later he came to St. Louis and organized the firm of Huse, Loomis and company, which engaged in the ice and transportation business in that city. For nineteen years thereafter, the firm continued in existence as at first organized, uniformly successful in its operations and building up a business of large proportions. In the year last named, the important interests involved prompted the owners and managers of the business to incorporate it under the name of the Huse and Loomis Ice and Transportation Company, with a capital of $550,000. Of this corporation, Mr. Huse became president. The principal feature of the business has been the supplying of ice to the people of St. Louis, and for this purpose, large storage houses were built by the company at various points on the Illinois and Mississippi rivers, and the annual harvests of ice are transported to this and other markets in boats owned and operated by the company. At Peru, Illinois, it harvests annually from 75,000 to 100,000 tons of ice, a still larger amount at Alton, and ice crops gathered at Beardstown, Illinois, and Louisiana, Missouri, add largely to its yearly product. During the ice gathering season, it employs regularly more than two thousand men, and a small army of persons are furnished employment in connection with this industry during the year. Mr. Huse is also president of the Creve Coeur Ice company, a stockholder and director in the Crystal Plate Glass company, a stockholder and director in the Peru Plow and Wheel company, president of the Union Dairy company, a director in the Boatmen's Bank and in the St. Louis Trust company, and a stockholder in various other financial, commercial, and manufacturing enterprises.

A radical departure from the accustomed mode of transportation between the ports of St. Louis and New Orleans was made in the spring of 1866 by a company chartered under the name of Mississippi Valley Transportation company. The object was the handling of freight by barges in large quantities in order to secure a reduction of rates, and make successful competition with railways, which were then beginning to encroach upon the territory tributary to the river. Another feature of the enterprise upon which the incorporators relied, -not alone for a satisfactory return of profits, but as well for the upbuilding of the grain market for the city of St. Louis -, was the facility thus inaugurated for carrying grain in bulk for export via New Orleans. In 1880 an opposition barge company- was organized; but the two companies were united in September, 1881. The commercial interests of St. Louis, together with a large area of the grain producing territory of the Mississippi valley, became deeply indebted to the barge enterprise, not only for the facilities afforded, but also for the grain ventures in which they

engaged at the outset in order to test the feasibility of the southern route, and thus over- come the prejudice and doubt existing as to climatic influence . The fleet of the St. Louis St. Louis and Mississippi Valley Transportation company, consists of ten powerful towing steamers, and some eighty barges, the capacity of the latter averaging 1,500 tons each. The usual tow comprises six or seven barges, thus aggregating during a fair stage of the river from 8,000 to 9,000 tons.

Beginning at the southwest corner of Seventh and Spruce streets, is a group of tall, imposing buildings known as the Cupples station blocks. These buildings seven or eight in number, covering about three hundred thousand square feet in ground area, lie on both sides of the mouth of the Terminal association tunnel, thus connecting with all of the St. Louis and east St. Louis railroads, and extend along the tracks of the Grand Southern and Western trunk lines, namely, the Iron Mountain, San Francisco, and Missouri Pacific railroads. Owing to the peculiar physical conditions here existing, in conjunction with the St. Louis Terminal association system, found in no other city in this country, it has been made possible to gather together a large number of the heaviest shippers, and to so construct buildings for them in this very heart of the city, that a single package of merchandise may be received and shipped to any railroad point in the United States from the back doors, without the customary delay and expense attendant upon the old drayage system. This is accomplished by numerous switches, or side tracks, extending from the various railroads centering here, through all parts of the basements or cellars of the Cupples station buildings, and which are connected with the upper floors or shipping levels by means of powerful hydraulic elevators, the goods being handled to and from the cars on several thousand trucks, the entire expense of switching, loading, and unloading of goods being borne by the various roads in proportion to the tonnage they receive and deliver. Cupples station is the name of the depot located here, and it has been estimated that about 1,000 tons of merchandise are received and shipped from this station daily, which is probably more merchandise than is handled at any railroad freight depot in the United States. It is impossible to adequately describe the scene of activity that takes place at Cupples station upon the arrival and departure of trains laden with the manifold products of merchandise received on one hand from every quarter of the country and destined on the other to every town and city in the railway shippers' guide. In the upper level shipping department of the station, about thirty thousand square feet in area, it is at times well nigh impossible for those unaccustomed to wend their way through the numerous piles of merchandise, but which under the experienced hands of many porters or truckmen, melt away and grow again as if by magic. It is a sight that no visitor to St. Louis should miss, it being strictly indicative of this great commercial age in which we live. Among the numerous economies furnished to the tenants in Cupples station blocks, may be mentioned those of labor, operation of elevators, elimination of expense of drayage, saving of waste and damage to goods in handling, and further economy in light, heat, and steam, owing to the location on the premises of an immense electric and steam heating plant owned and operated by the St. Louis Terminal Cupples Station and Property company. The St. Louis Brewing association was organized in 1889, to run for fifty years, with capital stock and first mortgage bonds of $10,500,000.

Of the Chouteaus, Auguste, who landed at the site of St. Louis on the fifteenth of February, 1764, was first. John Pierre Chouteau was born in New Orleans in 1758, and came to St. Louis, where he died in 1849. His son Pierre was the first Chouteau born in St. Louis. When he was seventeen years of age, Pierre accompanied Julian Dubuque up the Mississippi to the lead mines where afterward was located the city of Dubuque, Iowa. Three years later, in 1809, he went with his father and brother on a trading

expedition to the upper Missouri. The first brick house west of the Mississippi was built by Berthold, brother-in-law of Pierre Chouteau junior, the two using the structure as store in which they did business in partnership. At the end of seven years the general merchandise was closed, the trade in furs continuing until 1865. Meanwhile, in 1853, Mr. Chouteau established rolling mills in St. Louis, after having purchased the mines in St Francois County, and established the American Iron Mountain company. Charles Pierre Chouteau, born in 1819, was the fourth son of Pierre Chouteau junior. He was educated in the academy which has since become the St. Louis University, becoming proficient in civil engineering, and later in military tactics. Born to Charles Pierre Chouteau in 1849 was Pierre Chouteau, great grandson of the founder of St. Louis, and who became the fitting representative of this honored house. Beginning his education in St. Louis, it was continued at Liege, Belgium, where he entered the royal school of arts mines and manufacture. In 1874 he returned to America; he practiced his profession at St. Louis, while assisting his father in the management of the estate. Thus favored of fortune, Mr. Pierre Chouteau has, during his entire life, been a conspicuous figure, not only in his native city, but throughout the entire midcontinent of America, filling his proud position in such a manner as to add new luster to the name passed on to him from an illustrious ancestry.

Prominent in his day as a man of affairs was Samuel C. Christy, who married a daughter of Nicholas Jarrot, one of the most distinguished of the French colonists of the Illinois country. Born in France, Nicholas Jarrot came to the United States at the time of the revolution of 1792, which plunged his native land into anarchy and disorder, and in 1794 he established his home in Cahokia. Within a few years after coming to this country, he acquired a fortune as a merchant and trader, and became the owner of a large landed estate. He was a leading spirit in shaping the influences which invited immigration to southern Illinois and northern Missouri, and in that sense helped to lay the foundations of the two great commonwealths. A liberty-loving Frenchman, he found in free America a congenial atmosphere, and readily adapted himself to the new conditions by which he was surrounded.

He was a staunch friend and supporter of the government of the United States in establishing its authority over the territory embraced in both the states of Illinois and Missouri, and was major of a battalion of St. Clair county militia which, at the beginning of the present century, rendered valuable services in protecting the French and American settlements against the depredations of hostile Indians. His home in Cahokia erected in 1796 and long known as the Jarrot mansion, was the first house built of brick in the Mississippi valley, and was one of the wonders of its day. Nearly all the materials of which it was constructed were imported and along with these materials came the workmen who laid the walls. Still in a fair state of preservation at the end of more than a century of existence, this historic homestead is now the property of Mrs. Mary F. Scanlan, daughter of Samuel C. Christy. In this old homestead Mrs. Scanlan was born. Reared in the Catholic Church, she was educated at the convent of the Visitation, of St. Louis, and soon after leaving school entered upon a brilliant social career. In 1858, she married Lieutenant John R. Church, of the United States army, who had shortly before that graduated from West Point, and soon afterward went with her husband to Fort Washita, a military post in the Indian Territory at which he was stationed until near the breaking out of the civil war. When the conflict between the states began, Lieutenant Church resigned his commission in the army and tendered his services to the confederate government. The tender was accepted and he was commissioned a colonel of volunteers and assigned to staff duty. In this capacity he served, winning distinction as a brave and chivalrous officer, until the second year of the war, when

death ended his brilliant and promising career. His wife, who had accompanied him to the south, sought after his death to return with her two infant sons to her old home in St. Louis, but it took six weeks to accomplish her purpose, and but for the fact that she had many friends in both armies, and exercised infinite tact in bringing to bear influences which obtained for her a passage through the lines, she would doubtless have had to remain much longer in close proximity to the scene of hostilities. Returning to her old home, saddened by the affliction which had fallen upon her, she found a measure of consolation in church and charitable work, and thus linked her name with public institutions to which she has since been both friend and benefactress. At the close of the war, when the southern people found themselves in a veritable valley of the shadow, she was one of the noble women of St. Louis who set on foot the movement which resulted in the holding of the great southern relief fair, through which aid was extended to thousands of the sufferers. In later years, she has been a zealous member of the Daughters of the Confederacy. She was one of the organizers of a movement conducted by ladies which lifted a heavy debt from the church of the Annunciation, at the corner of Sixth Street and Chouteau Avenue, and also assisted in erecting the school building connected with this church. She was one of the originators of the movement which resulted in the building of the Augusta free hospital, later called Martha Parsons hospital, for the care of indigent sick children. For many years she was president of the Visitation Convent Sodality of Cabanne place, and also of the Sacred Heart Sodality. The building of the new catholic cathedral was facilitated by her substantial aid and encouragement, and every enterprise designed to better social and moral conditions in St. Louis has had her earnest sympathy and hearty support.

After seven years of widowhood, she married, in 1869, James J. Scanlan, a native of Philadelphia, who had been for some years prominent in the business circles of St. Louis. Five children were born of their union, and in later years, Mrs. Scanlan went abroad with her family and resided five years in the old world, educating her sons. Returning to St. Louis at the end of that time, she resumed a leadership which she had long enjoyed in social circles, and for which her graces and accomplishments eminently fitted her. Her home has always been one of the principle centers of the most refined and highly cultivated society of St. Louis, and on numerous occasions it has been the scene of great social functions. An event of both historic and social interest of the highest character was the reception and ball given by Mrs. Scanlan at her beautiful home, 3535 Lucas Avenue, December 12, 1881, to the descendants of the French officers who had fought with the duke de Rochambeau, the duke de Grasse, and General Lafayette under the command of Washington in the war of independence. These French military and naval officers were the guests of the nation, to assist in the celebration of the centenary anniversary of the surrender of Yorktown. The members of the delegation who, after the celebration, visited St. Louis were: General Boulanger, representing the French Army; Colonel Bossan, of the dragoons; Captain Sigismond de Sahune, of the hussars; Captain Gouvelloe, of the artillery, whose grandfather directed the artillery at Yorktown; the two brothers Aboville, captains in the cavalry; the Count Charles d'Ollone, and the Viscount Victor d'Ollone, his son; Colonel Octave Bureaux de Pusy, Maximilien de Sahune and his brother Sigismond, the three last mentioned grandsons and grandnephews of General Lafayette; and the Marquis de Lestrade, grandson of a naval officer under De Grasse. Captain Henru de la Chere, military attache of the brench legation at Washington, chaperoned the party during their entire tour through the United States. At the first visit the French delegates made to St. Louis, they were invited on the floor of the Merchants' Exchange, where both General Boulanger and Colonel de Pusy made eloquent speeches. Among the things General Boulanger said, this fact was mentioned: "We have visited no city in the United States but once but to

show our affection for St. Louis after our visit to California, instead of going by the Southern Pacific to New Orleans, we shall return to St. Louis to accept the charming invitation of a reception and ball tendered to us by Madame Scanlan." All the officers stationed at the barracks who had also given their French comrades-in-arms as reception and luncheon, were invited to Mrs. Scanlan's house. All the elite of French and American society were invited.

It was a noted and striking fact that nearly all the American ladies invited spoke French. The late George M. Pullman tendered to Mr. Emile Karst, French consular agent in St. Louis, the use of a palace car for the delegation on their intended visit to New Orleans. On the arrival of the delegates in St. Louis, the French citizens gave them a reception and a banquet at the St. Louis club. In January following, the delegation returned to France. In their correspondence, in later years, with their St. Louis friends, they referred with pleasure to the delightful ball at Mrs.. Scanlan's as the most enjoyable entertainment given to them in the United States.

At her home, too, Mrs. Cleveland was a guest on the occasion of the President's visit to St. Louis during the administration of Mayor David R. Francis, and the reception given by Mrs. Scanlan in Mrs. Cleveland's honor was the distinguishing feature of the entertainment planned for the first lady of the land at that time. Another social event which delighted the best society of St. Louis was that which attended the formal entrance into society of her only daughter. Miss Marie Therese Christy Scanlan, a charming young lady, who completed her education at the convent of the Visitation of Georgetown, and returned to her home in 1897. The other children of Mrs. Scanlan are Alonzo Christy Church, one of two sons born of her first marriage, and Phillippe Christy and Andre Christy Scanlan, born of her second marriage.

Shepard Barclay, jurist and judge, is a product of the modern west, and his career illustrates the progress and achievements of the generation of natives whose youth was spent under the influence of those sturdy pioneers who, within the span of a few decades, caused the western wilderness to blossom with the refinements of a fresh and vigorous civilization. He was born in St. Louis in 1847, and is a grandson of the late Elihu H. Shepard, one of the early American settlers in St. Louis. Captain Shepard was a soldier in the war of 1812, and served in the American expedition against Canada. In the Mexican war he was a captain of Missouri volunteers, and took part in the invasion of Mexico in 1847. He was a citizen of public spirit, as his handsome gift of the Shepard school property to the public school board attests. He was one of the most efficient teachers of his day, and he gave his grandson the first instruction he received in the classics. Shepard Barclay's education was begun in the public schools of St. Louis. From the high school he passed to the St. Louis University, where he was graduated in 1867. He commenced the study of law in that year at the University of Virginia, where Professor John B. Minor, author of the Institutes, was one of his preceptors. While there he was elected president of the Jefferson society. He received his degree in law in 1869, and in the same year started to Europe, where he remained until 1872. During that period he spent two sessions at the University of Berlin in the study of the Civil Law, under the guidance of Drs. Gneist and Bruns, and devoted considerable time to German and French. In St. Louis he was professionally connected with the press as editorial contributor, during the early days of his law practice. In 1873 he formed a partnership with William C. Marshall (afterward one of the judges of the supreme court of Missouri) which continued until the election of Mr. Barclay in 1882 as circuit judge. From 1877 to the time of his election as judge he took an active part in the organization and development of the St. Louis military, as captain of the Lafayette guard, a company which attained a high degree of proficiency during his

command. After nearly six years' service on the circuit bench, he received the democratic nomination for judge of the Supreme Court, and was elected to that office in 1888. In January, 1897, he was chosen chief justice by his associates. In the early part of 1898 he resigned and returned to the practice of law in the city of St. Louis as a member of the copartnership of McKeighan, Barclay and Watts, which enjoys a large share of public confidence and has a recognized position among the best law firms in Missouri.

Uplift a thousand voices full and sweet,
In this wide hall with earth's inventions stored,
And praise the invisible, universal Lord,
Who lets once more in peace the nations meet,
Where Science, Art, and Labor have outpour'd
Their myriad horns of plenty at our feet.

O silent father of our Kings to be
Mourn'd in this golden hour of jubilee,
For this, for all, we weep our thanks to thee!

The world-compelling plan was thine,
And, lo! the long laborious miles.
Of Palace; lo! the giant aisles,
Rich in model and design;
Harvest-tool and husbandry,
Loom and wheel and enginery.

Secrets of the sullen mine,
Steel and gold, and corn, and wine,
Fabric rough, or fairy fine,
Sunny tokens of the Line.
Polar marvels, and a feast
Of wonder, out of West and East,
And shapes and hues of Art divine!
All of beauty, all of use,
That one fair planet can produce,
Brought from under every star,
Blown from over every main,
And mixed, as life is mixed with pain.
The works of peace with works of war.

Is the goal so far away?
Far, how far no tongue can say,
Let us dream our dream today.

O ye, the wise who think, the wise who reign,
From growing commerce loose her latest chain,
And let the fair white-wing'd peacemaker fly
To happy havens under all the sky,
And mix the seasons and the golden hours;
Till each man find his own in all men's good,
And all men work in noble brotherhood,
Breaking their mailed fleets and armed towers,
And ruling by obeying Nature's powers,
And gathering all the fruits of earth and crown'd with all her flowers?

It is but a brief century since the region round the great lakes was a primeval wilderness. There were present possibilities, the wealth of savagism, but there was no wealth of civilization, none of that wealth which educates and refines, which enlightens and ennobles. The flat, fertile, well-watered soil, with forest and open prairie interspersed, gave forth abundance of native fruits, supporting myriads of wild animals and wild men, all glorifying their creator by preying on each other to their full content and happiness. Bordering Lake Superior were the Hurons and Chippewas; around Lake Michigan the Winnebagoes, Illinois, and Otta was, while the Delawares roamed about the Ohio River and its northern tributaries. The land is now subdued and occupied by humanity of the highest advancement, having farms, towns, and cities, any of them ranking among the foremost in the world.

The Sacs lived on the Detroit River and Saginaw bay, later with the Foxes settling near Green bay. They took sides with the French and fought the Sioux and Iroquois. The most noted chief of the Sacs was Black Hawk, who sought to recover lands which had been unjustly taken from his people. On the Wisconsin River the French found the Kickapoos, who killed one of La Salles priests. Later they drifted over to Rock River, in Illinois. They enjoyed the honor of having opposed to them in war three great men of the nation, Scott, general-in-chief, and two later presidents, Harrison and Taylor. Allies of the Illinois, and friends of the French, were the Missouris, who occupied the river to which they gave their name, and where Marquette first heard of them in 1673. The Miamis held lands in Indiana, and in 1846 were removed west, which they ceded to the government,

Some few of such remnants of the native nations as were not obliterated by civilization became comparatively wealthy. The Wyandots, once on Lake Huron, but later living in Ohio, upon the division of their lands among themselves received each forty acres,—perhaps one acre in a thousand of what they had of their own before the whites came—forty acres returned out of forty thousand stolen.

But forty acres is wealth as against absolutely nothing. Some were much better off than that, however, their acres and their dollars amounting up into the thousands. When the Winnebagoes left Lake Michigan, where they kept themselves for the most part to the Wisconsin side, and went to live in Nebraska, they secured for themselves farms, on which they built comfortable houses and raised live stock. On the northwest shore of the Michigan peninsula were the Ottawas, whose sometime chief was the great Pontiac. The Ojibways, or Chippewas, on lakes Huron and Superior, cared less for wealth than for war, their hereditary foes being the Sioux, Foxes, and Iroquois. Branches of this nation, however, secured considerable property, the Ojibways of the Mississippi and elsewhere saving for themselves land in the aggregate amounting to 5,000,000 acres, and United States government obligations to the extent of $1,000,000. The Illinois fought their neighbors and espoused the cause of the French, meeting their missionaries at Chegoimego, on Lake Superior, in 1667. The Shawnees of Ohio, among whose chiefs Tecumseh was conspicuous, became scattered, one band being in Pennsylvania when ceded to Penn, another posing as friends of the Spaniards in Florida, and yet another dividing 1,600,000 acres of land in Kansas among the last remaining 900 of their number.

Michigan, from Chippewa signifying ‘great lake,’ and Wisconsin, 'wild rushing river,’ were early visited by French missionaries and fur hunters; where Detroit now stands in 1610, and Saulte Sainte Marie in 1641, Marquette establishing a mission there in 1668. Detroit was founded by an expedition under Cadillac in 1701, possession falling to Great Britain in 1763. Pontiac then headed a conspiracy to exterminate the whites; Detroit was besieged and the garrison at Michilimackinac, now Mackinaw, butchered. Michigan was at first included in the territory northwest of the Ohio, and later formed part

of Indiana. Wisconsin was taken from the territory of Michigan in 1836, and included what are now Iowa, Minnesota, and part of Dakota. Detroit was thus the historic chief city of Michigan, and once the capital of the state. Fort Pontchartrain was built when Cadillac came in 1701; Fort Le Moult was erected by the British in 1778, when the place consisted of 60 log houses and 300 inhabitants. After the war of 1812, during which it was surrendered by Hale to the British, Fort Shelby was built, and remained standing until 1827. The town was burned in 1805, and in 1807 the present city was laid out. It was in 1673 that Marquette set out from Mackinaw, and proceeding by way of the Wisconsin River to the Mississippi, descended that stream to the mouth of the Arkansas, whence he returned by way of the Illinois to Green bay. La Salle in his explorations about the lakes visited many native peoples, the Senecas and Iroquois among the first. Building a ship, he sailed through lakes Erie. He descended the St. Clair, Huron, and Michigan to Green bay, rivers Ohio and Illinois. He established the trading post of Fort Miami, formed an alliance with the Illinois, and shipped furs to Montreal. In 1680 he built Fort Crevecoeur near where is now Peoria, and the following year started from Fort Miami, ascended the Chicago River, and crossing to the Illinois, passed down that stream and down the Mississippi to its mouth. He explored the three channels, and taking possession for France returned and established Fort St. Louis, at Starved Rock on the Illinois; also Kaskaskia, Cahokia, and other towns. After a visit to France he found himself again on the Mississippi, there to meet his death at the hands of his ruffian followers. As a type of the American Indian proper, probably these about the great lakes, from Superior to Erie, were the fittest. The conditions here were such as to stimulate and develop the highest order of native manhood, physically at all events, and while intellectually they may have been the equal of the Aztecs and Peruvians, they certainly were not so in culture for the occupants of the tropical American tablelands were civilized peoples, or partially so, with rules of government and literature, with arts, science, and advanced industrialism, while the Indians of the north were simply savages. But they were of an order very superior to those of any other parts of the two Americas, those bordering on the ocean, or occupying the sandy plains of the interior, being the lowest of all.

While the Canadian voyageurs and coureurs de bois were infesting the great lakes and rivers and forests of Wisconsin, Michigan, and Illinois, another route was opened by the Frenchmen from Montreal to the Mississippi by way of lakes Ontario and Erie, and the Miami, Wabash, and Ohio rivers. Trading posts were established where now are Vincennes and Lafayette, and in the Ohio valley.

Here disputes regarding conflicting claims arose between the French and English, leading to the war in which Braddock met his famous defeat. Marietta was settled in 1788, and in 1803 Ohio was made a state, with the seat of government first at Chillicothe, then at Zanesville, and finally at Columbus. Anthony Wayne found a French trading post on the spot now occupied by Fort Wayne, and established himself there in 1794. A century later this wilderness outpost is an important canal and railroad center with advanced educational and industrial facilities, $16,000,000 worth of property, and very superior electrical works.

The spot where stands Chicago was an Indian rendezvous when first seen by the white man. Marquette was there in 1673, and found the place occupied by the Tamaroas, a warlike people, and a branch of the Illini nation, whose name was given to the state. Joliet visited the place; also Hennepin and La Salle. These or other Frenchmen was erected there a fort. On a map made in Quebec in 1683 the place is designated as Fort Checagou. It was abandoned in 1763 when England came into possession of the country. Fort Dearborn, built by the United States in 1804 and abandoned in 1812, was on the south bank of the river, near its mouth. It was rebuilt in 1816, again abandoned in 1837,

and demolished in 1856, one of the outbuildings remaining until burned in 1871. The Illinois settlements were quite content under French rule. When they passed to English domination they seemed less satisfied, but became quite prosperous when, in 1787, they fell to the United States, the country north of the Ohio being called the Northwest Territory, with a population in 1800 of 50,000. In that year Ohio was erected into a separate territory; in 1805, Michigan; and in 1809, Indiana; Illinois territory being what is now Illinois, Wisconsin, and part of Minnesota, and containing 12,000 inhabitants in 1810.

Upon its hills and terraces of blue limestone, overlooking the beautiful Ohio River, with Kentucky opposite, Cincinnati presents a most picturesque appearance. An Indian town occupied the spot before the white man came, the many relics showing the sometime presence of the prehistoric mound-builders. A white settlement was made here in 1788, called first Losantiville, that is to say, Town-opposite-the-mouth-of-the-Licking-River. It received its present name from Arthur St. Clair in honor of the society of the Cincinnati, instituted in 1783 by the continental army officers on the Hudson River. Incorporated in 1814, a steamboat was built two years later; in 1830 the Miami Canal was made, and in 1840 the first railroad. Intelligent, energetic, far-sighted men were ere this at the front, so taking advantage of their magnificent resources and possibilities as to gain for their city the title Queen of the West. Wharves and docks now line the bank of the Ohio for a distance of two miles, whence there is direct river communication of 2,100 miles, up to Pittsburgh and down to New Orleans; and this without including the navigable tributaries of the Ohio and Mississippi, which increase the distance fourfold. Here are scores of banks and large mercantile houses and here concentrate many lines of railways, telegraphs, and river and canal navigation. Malt and distilled liquors and tobacco are among the leading manufactures, the internal revenue tax paid in this district reaching from ten to fifteen millions of dollars annually. During the winter of 1882-1883 425,000 hogs were packed in 173 establishments. When a city like Cincinnati, with a population of half a million, can point to an increase of annual manufacturing products of from $25,000,000 to $250,000,000 within half a century, to an increase of laborers from 2,500 to 120,000 within quarter of a century, and to $300,000,000 imports, with exports exceeding that amount, it may well be proud of its people and its progress. In one decade, from 1880 to 1890, the arrival and departure of railway trains increased from 310 to 416 daily. In 1892, 57,000,000 bushels of coal were consumed in manufacturing, and for other purposes, the fuel so vitalizing to wealth being easily and economically obtained by rail from the adjacent coal fields of Ohio, Pennsylvania, Kentucky, Tennessee, and the Virginias.

Seeking extensions of trade in the south, the men of Cincinnati built the Southern railroad. Every financial convulsion has been safely weathered, while bank clearings increased from $522,000,000 in 1888 to $721,000,000 in 1892. Schools, colleges, the University, the Art Museum, and the Rockwood Pottery may well be pointed to with pride; also institutions such as the Chamber of Commerce. Mechanics Institute, Board of Trade and Transportation, Commercial and Manufactures clubs, and Zoological Garden, with prominence in such industries as lumber, textile fabrics, jewels and diamonds, furniture, pig iron and veneer mills, shoes, clothing, leather productions, cooperage, iron pipe, billiard tables, breweries, carriages, playing cards, labels, lithographic printing, wood-working, tanning, and others. By the steamers of the Chesapeake and Ohio railway, Cincinnati has direct communication with Europe. When the Nicaragua Canal is completed, her vessels will find their way to every port of the Pacific, Asiatic and American. This city is a natural center of population, a center

of supply and demand, of both natural products and manufactured articles. And best of all, Cincinnati works with her own capital, builds and owns her own railroads and manufacturing and other industries.

Cleveland was settled by the Connecticut Land Company in 1796. Owing to the canal, the railways, the advantages taken of its position on the lake, and the vast extent of rich lands tributary, Cleveland has become the second city in the state. The water facilities for bringing iron ore and copper from Detroit and Lake Superior to this point, where they are met by cheap coal from the Mahoning valley and elsewhere, give Cleveland great advantages in manufacturing. Columbus, owing to its central position, was made state capital in 1812, and the legislative buildings and business, together with the asylums, hospital, arsenal, penitentiary, university, and colleges, have been sufficient to give the city a steady and prosperous growth.

Indianapolis is the largest city in the United States situated on non-navigable waters. Being thus entirely dependent on railways, it has been called the railroad city, arrivals and departures being very frequent. The first train to this point was in 1847. So great became the traffic that in 1877 tracks were laid so that through freight trains may pass around the city instead of through it.

Milwaukee, the largest city in Wisconsin, is pleasantly situated on the shore of Lake Michigan at the mouth of the Milwaukee River, where the Kinnikinnic and the Menomonee likewise come together. Four great railway systems center here, which, with the transportation facilities afforded by the lake, and the fertility of the surrounding country, give the place every advantage for large and continuous growth. Besides extensive woolen factories, pork-packing establishments, and rolling and flouring mills, there are several great breweries, chief among which is that of Pabst.

All wealth springs from the earth, plants and animals upon the surface, minerals and metals below.

Among the world's men of mark is Philip D. Armour, born at Stockbridge, New York, in 1832, and after a trip to California when twenty years of age he made his home Stock at Chicago and began gathering in the possibilities. Stock and grain were the great staples throughout an area of a thousand miles west and south, and it was in turning his attention to these at the outset that Mr. Armour was enabled to accomplish what he has accomplished. It was thus early in life that the chief characteristic of the man appeared, the power of penetration, of distinguishing great things from small, and firmly grasping important issues as they marched before him. There is no chance about it; superiority commands, it does not simply woo success. In a community composed of able men, the ablest perhaps in the world, no one could have attained the wealth and position of Mr. Armour without a genius for affairs, and that of the highest order. He has done nothing less than to centralize at Chicago the great cattle industry of North America, having directly or indirectly subordinate to the business an industrial army of 60,000 men, at an annual aggregate wage of $8,000,000, The Armour Institute of Technology, which cost $1,500,000, is by no means the only benefaction conferred on Chicago by Mr. Armour, his private charities and the mission work supported by the Armour Flats, absorbing large sums annually.

As above indicated, Mr. Armour made his money in reducing the handling and slaughtering of stock to a science, and in speculating in grain. It is characteristic of many of these large mid-continent cities that they have become great, and made wealthy many of their inhabitants who possessed the ability to enlarge and extend into apparently impossible proportions some ordinarily small and not specially

intellectual or refined business. In looking upon the extensive stockyards, and packing houses of the Armour establishment, the reflective mind naturally turns to consider the size and style of slaughter-house from which all this was evolved. And so it is with many other branches of business which have arisen from low degree, making famous the men who developed them. Indeed, the greatest fortunes are often made in small things, or rather in making small things great. The most profitable patent rights are frequently those which apply to some small article of domestic use, like putting the eye in the point of the needle. Agricultural machinery, which has saved to the world hundreds of millions of dollars during the last half century, are for the most part but a revised and enlarged rake, plow, or hoe. Mr. Pullman's inventions, which have made his name a household word the world over, and gave rise to a large town with factories, churches, schools, and libraries, all involving the outlay of many millions of money are simply to the end, that travelers by railways may sleep better at night, with increased comforts by day. The telephone is another great invention for the accomplishment of a simple end, that of enabling persons at a distance to converse and hear as if near to each other. All these and other modern inventions seem much simpler than those of gunpowder and printing made several centuries ago, or even electric telegraphy, which is little more than half a century old, and whose lines span every continent, and ocean, and every important island, and extend to the remotest corners of the earth, making all the world one, and bringing into daily and hourly contact half of the inhabitants of the globe.

The names of Walter L. Newberry and John Crerar will be held in grateful remembrance by the people of Chicago as long as any Chicago remains. For what greater or better thing can a man do in this world than to give his fellowmen books? Mr. Newberry was a native of Connecticut, moving to Chicago in 1834, and leaving to the Newberry Library two and a half millions of dollars. Mr. Crerar was born in New York City, of Scotch parentage. After making a fortune in iron in Chicago, with J. McGregor Adams as a partner, he made numerous large and small bequests, and died in 1889 leaving $3,000,000 to found a library.

It is still worthy of remark, among the many wonderful things conceived and brought forth in Chicago, that the two great industrial developments of the age claim this midcontinent city as their home. The McCormick reaper wrought a revolution in agriculture, its influence extending to all parts of the earth, especially throughout those immense plains of America and Asia which are taking upon themselves to feed the inhabitants of the earth. Thus by the increased harvesting facilities food is cheapened; those now eat bread who never ate bread before; the whole world thus partaking of the blessings of this invention. Likewise millions of money were saved, which means that millions of money were made, one statesman declaring that the McCormick reaper was worth to the United States $55,000,000 a year. In like manner all the world partakes of the blessings of the Pullman sleeping car, not only a luxury, reducing the discomforts of travel to the minimum, but for the most part a necessity, and to the strong as well as the weak, enabling the former to utilize the nights without absorbing the vigor necessary for the duties of the day, and giving to millions of the latter the delights of moving about the world who otherwise must needs stay at home.

Cyrus H. McCormick was a native of Virginia, born of Scotch-Irish stock at Walnut Grove in 1809. His father, Robert McCormick, to aid him in his farm work built a thresher, and a hemp breaker, and made improvements in mill machinery and smelting furnaces, of which abilities and experience the son derived early and substantial benefit. At the age of fifteen the boy McCormick reaper of today invented for himself a harvesting cradle, which enabled him to keep up with the men. In 1831 he

patented a plow, and began work on a reaper, which appeared in 1840, and in the improvement of which he spent the greater portion of his life. Removing west in 1846. Chicago thereafter became his home, and the center of his operations, which continued to expand until they filled the earth, the McCormick devices assuming supremacy wherever wheat grew in any large quantity. Upon the death of the great inventor, his work was worthily continued by Cyrus H. McCormick the younger, whose charities have been boundless though unostentatious, and whose great business is itself benefaction. There is no happier blending of philanthropy and business presented to the world than that shown in the everyday life of this corporation. A few years ago when labor, acting under the inspiration of unprincipled demagogues, demanded in reality the direction of its affairs, the present president agreed to accede to every just demand, but held firmly to his rights as an employer, saying to the men that he would control as long as he should employ labor, that he would pay for labor a fair price—all it was worth, but that no body of men should compel him to hire the lazy vagabond in preference to the sober, honest, and industrious mechanic or laborer.

This was logic expressed so forcibly it could not be misunderstood. A miserable strike, based on imaginary wrongs, came to an end when this line of reasoning penetrated to the brains of the strikers. The employers magnanimously forgot the crime of the employees, and restored the greater number of them to their former positions in the factory.

To originate and evolve from one's own inherent apprehension of an external and popular necessity an achievement like this of Mr. Pullman's, whereupon towns spring into existence and a thousand hotels on wheels, giving accommodation and comfort to tens of thousands of patrons speeding continuously day and night hither and thither to the ends of the earth, is like the creation of an empire or the founding of a dynasty, an empire and dynasty greater, nobler, and more enduring than those of any Alexander or Rameses, based as it is upon benefits to man and with all the world as subjects. George M. Pullman was born at Brockton New York in 1831 and died at Chicago in 1897. He learned cabinet making, earned some money, and moving to Chicago in 1859, engaged in raising buildings to the new street grade. Then his mind turned to the discomforts of night travel by rail, and he made himself the efficient instrument of their amelioration. A sleeping car was built, the Pioneer, costing $18,000, as against $5,000 for the most expensive car hitherto constructed; the next one made cost $24,000, both being immediately successful. Then in 1867 the Pullman Palace Car company was organized with a capital of $1,000,000, later increased to $36,000,000, market value $60,000,000, operating 3,000 cars over 125,000 miles of road with 15,000 employees. Requiring more room for offices and manufactories than could be obtained in Chicago at a moderate price, 3,500 acres of land was purchased near Calumet Lake, fourteen miles distant, and the town of Pullman projected and built. An industrial dream; how many there are in fancy, how few realized! Pullman became a model little city, with clean streets, park, and water vistas; schools, churches, libraries, and all the adjuncts of civilization and refinement. What an example to American youth, the life and labors of Mr. Pullman! Beginning with nothing, save his native ability and energy, he managed, while acquiring immense wealth for himself and his family, to confer comfort and pleasure upon millions of his fellow men. How different such achievement as this from that of the manipulator of other men's money, the speculator, the financial gambler. Were every man a creator of wealth, like Mr. Pullman, instead of merely an accumulator, the progress of civilization would be many times more rapid than it now is. He who creates nothing, who produces nothing, who manufactures nothing, or exchanges the products of one country with those of another, like the merchant, fails in accomplishing the highest

purposes of progressive man, no matter how much of wealth he gathers into his particular personal heap. It is not leaving the world better than we find it, to enrich ourselves at the expense of others, but rather while improving our own condition, improve likewise that of others.

Mr. Pullman took great pride in his achievement, and justly so. Said he to me one day, "There is my life work," pointing to the wall of his office, where hung the picture of a car of the pattern of 1845 beside one of a beautiful Pullman palace car. "I found the great traveling world cooped up at night in a box like this, and I provided them, even while on a journey, many of the comforts and luxuries of home, not to speak of greater safety of life."

Though all-dominating, air and sunshine are not wealth, being free to all and with no exchangeable values. Soil is bought and sold because it has a limit, and is precious and necessary to life, though why one man born into this world should be entitled to more of it than another, or why the first comers have rights to existence over later comers, are questions we will leave to the philosophers. Suffice it to say here that what we designate as the Central Lake States, for the purposes of this chapter, that is to say, Illinois, Michigan, Wisconsin, Indiana, and Ohio, comprise a patch of earth of exceeding richness and value. Search the world over and we find no area of equal extent uniting so many advantages. Configuration; it was at the first as laid out by nature in all its fresh wildness and beauty, a garden. Soil; rich and productive and uniformly good, beyond that of any other section. Climate; it is the kind of air and sunshine that makes men. Resources; surrounded and intersected by lakes and rivers affording the most perfect facilities for transportation and interchange of commodities, the ease with which railways can be built and operated over the flat surface, and the abundance everywhere of the most precious minerals and metals, more precious than silver and gold,—man could scarcely ask more of his maker. Nor do those now occupying this favored spot ask more, but with a will they work to make the best of themselves and their opportunities.

A fine black humus mould underlain by clay but without stone or sand, covers hundreds of miles of these prairies, where a luxuriant native grass has for ages sustained herds of deer, antelope, and buffalo. In this soil will grow any except tropical plants, and the fertility and endurance of the land seem inexhaustible. From the rich river bottoms of Indiana, which are at once absorbing and developing wealth and population in a remarkable degree, great quantities of grain and live stock come forth to feed less fortunate sections. The leading industry of Ohio is agriculture, in which more than half the people are directly interested or engaged, the production of cereals reaching nearly 200,000,000 bushels annually. The production is large, likewise, of wool, flax, fruits, and maple sugar. Manufactories also abound, conspicuous being iron furnaces at Cleveland, where likewise the Standard Oil company has works employing 3,000 men. There are extensive agricultural implement factories at Springfield, Canton, and Akron; glass works at Findlay and East Liverpool; rolling mills and carriage factories at Columbus; and in Cincinnati many large industrial establishments, conspicuous among which is pork-packing. There were in 1890, over 7,000 manufactories in Ohio, with a capital of over $200,000,000, products $400,000,000 and employing 240,000 men women and children. Natural gas, developed at Findlay and elsewhere since 1884, has stimulated many interests.

Michigan holds preeminence as the largest lumber state in the union, not often falling behind that point. The output in 1892 was about 3,700,000,000 feet, and 1,800,000,000 shingles. Bituminous coal is found in almost all parts of Illinois, three-fourths of the surface area being underlain by coal

beds. Lead mines have long been worked near the prosperous city of Galena. Indiana has 7,000 square miles of coal beds, with unlimited fire clay, potters clay, kaolin, and lime. In Wisconsin are lead and iron in abundance with some copper and zinc. Around the coal field of Michigan, which is open to Lake Huron by Saginaw bay, and comprises 12,000 acres, are limestone, gypseous shales, and plaster of Paris; also slates and sandstone . Except in Chili, the copper mines of Michigan are the most productive in the world, the returns in 1885 being 36,000 tons. The output of the Lake Superior iron mines was in value in 1882, $26,000,000, and in 1884, $14,000,000; salt in 1885, 3,300,000 barrels. Wisconsin produces iron, lead, zinc, stone, and peat. First of mineral products in Ohio is coal, with a plentiful supply of iron, cement, lime, petroleum, gypsum, clays, salt, marl, peat, and building stone.

The true greatness of the cities of the lakes, and of the men of those cities, the world at large does not realize. Michigan alone has a longer shore line fronting on navigable waters than Holland, Germany, and Austria combined. More tonnage passes in and out of Lake Superior through the St. Mary Falls Canal, than goes through the Suez Canal.

And this is but one of a series of canals by which the men of the lakes propose to establish a commercial water way from Duluth to the Atlantic Ocean, of sufficient breadth for all purposes, and not less than twenty feet deep, thus making in effect fifty large inland cities ocean ports. Wheat can then be shipped from Minnesota, the Dakotas, Manitoba, and half a dozen other sections to Liverpool, or any other port in the world without breaking bulk. The Nicaragua Canal, over which congress agonizes and does nothing, session after session, looks small besides such stupendous ideas as these, yet not seemingly stupendous to minds accustomed to large ideas. Public works and improvements to aid development are but just begun in the United States. The drainage canal from the south branch of the Chicago River to Lockport, the flow through thence continued down the Desplaines river to Joliet, is one of the greatest works of any age or nation, many miles of solid rock being cut through and many millions of dollars expended.

Samuel M. Nickerson, president of the First National Bank, that he was made so in 1899 was gratifying to all those in any way interested in the bank. Until within the last six years he had been president. During the interim the position was occupied by Lyman J. Gage, who took a place in Mr. McKinley's cabinet as secretary of the treasury. Mr. Nickerson's painstaking conservatism during the twenty-five years of his occupancy previous to Gage’s term was generally conceded. He was connected with the First National Bank since its organization in 1863. It started with a capital of $100,000, Nickerson being its first vice-president. At the end of four years he was elected its president, and continued in the office until 1891. The brilliant record of the bank under his management was a demonstration of his ability as a financier. Born at Chatham, Massachusetts, in 1830, he was educated in the public schools of Chatham, and came to Chicago in 1858. He was the organizer of the Union Stock Yards Bank, later known as the National Live Stock Bank, and for a number of years was its president. He was president of the Chicago City railway from 1864 until 1871, and has been extensively interested in many financial deals and enterprises. He has traveled extensively over this country, and at the time of his giving up his position as president of the First National Bank he took a trip around the world, returning much benefited and improved in health after his long-needed recreation.

To come to the lake region as early as the fifties and attach one's self to the embryo interests of iron manufacture and transportation, with an ability to not only keep pace with, but lead their

development, shows genius. Given Chicago as a great manufacturing and distributing center at one end of the lakes, the Lake Superior iron mines at the other, and the rise of machinery and railways, the men who arise to grasp, unite, and develop them only need time to become kings of industry. The story of the rise of Orrin W. Potter to the chairmanship of the great Illinois Steel company is a tale of interest and instruction. In the year 1864, when but twenty-eight years of age, he became secretary and manager to the newly organized Chicago Rolling Mill company. With about $250,000 invested in the original plant, the daily capacity 100 tons of iron rails, and a force of 200 employees, another mill of increased capacity was erected at the reorganization in 1864, and the new capitalization placed at $500,000. Two years later the original plant was burned, but at once rebuilt on such a scale that the whole business was reorganized in 1869 as the North Chicago Rolling Mill company, with a capital of $1,000,000. The year 1871 Mr. Potter took the presidency of the organization. The second year he added the Bessemer steel plant at a cost of $250,000. After nearly twenty years, the entire system was reorganized as the great Illinois Steel company, with a capital of $25,000,000 and employing over 11,000 people. Mr. Potter remained with the new company as chairman of the board of directors until April 1890.

The phenomenal out-spreading attending the growth of Chicago is due to the genius and foresight of the city's builders. Physical conditions, it is true, have greatly aided in this, for instead of being surrounded by a broad prairie, had operations here been limited to an island or narrow peninsula, as in the case of New York, the present results could never have been attained. Men like Samuel E. Gross saw this and acted on the inspiration from the first. There was an unlimited room for the city's growth in every direction except on the lake side; how make it available for the crowds of people coming here for homes? This question can best be answered by giving something of the experience of Mr. Gross in connection with the parks and boulevards, the suburbs and surroundings of Chicago.

Mr. Gross was not quite twenty-two years of age when he came to Chicago in 1865, having been born in Pennsylvania, on the banks of the Susquehanna, in 1843, and having served in the Union forces throughout the Civil War, rising to the rank of captain in the 20th Pennsylvania cavalry at the age of twenty. On his father’s side his colonial ancestry was of French-Huguenot and Holland-Dutch stock; and his great-grandfather John Gross was a captain in the patriot army during the revolution. S. E. Gross graduated at the Union college of law. Chicago, and was admitted to the bar in 1866. During his law course he had invested some means in desirable real estate, which he began to build upon in 1867 and to dispose of. So profitable were his investments in this direction that he gradually engaged in real estate operations to the exclusion of other interests. Not unmindful of public affairs while pushing his private business, he interested himself in the establishment of the park and boulevard system for beautifying the city, and was influential in effecting its completion. When the great Chicago fire of 1871 swept over the city, he secured as many as possible of his valuable books and papers, and rowing out with them in a small boat, stowed them temporarily upon a tug. At the subsidence of the conflagration, he established himself as best he could among the smoking debris and resumed business with an energy that marked him as one of the coolest headed men of that epoch of devastation and excitement.

Continuing along the same business lines he had followed prior to this disaster, Mr. Gross, about the year 1879, formulated those great operations which have since signalized him as the foremost sub-divider of real estate in the world. Entering upon the work of subdividing vacant tracts, he sold thousands of business and residence lots during the three years following, and in 1882 began on a

large scale the building of homes for the multitude. With unlimited faith in Chicago's future, he purchased and rapidly built up large districts immediately encircling the city; properties that if left to individual building would have remained long undeveloped, but which he transformed rapidly into a score of beautiful villages, and which are now solidly built up portions of the city itself.

Prominent among his extended transactions may be noted "New City," lying to the south-west, which is now very nearly the geographical center of Chicago; Gross Park on the north, where he changed that locality in a single decade from a vegetable garden to a flourishing center of over five thousand inhabitants; Brookdale on the south, laid out in 1886, and now five miles inside the city's limits; "Under the Linden," to the north-west, opened the same year, a large suburban venture; Calumet Heights and Dauphin Park to the south-east and south, the latter now the very center of the city's great manufacturing district; a large city subdivision on Ashland avenue; still a larger one at Humboldt Park; and the building of several hundred houses at Archer avenue and Thirty-ninth street; Grossdale, located in 1889, where a prairie farm of five hundred acres has been transformed into a beautiful city of fine residences, churches, schools, theater, and other public buildings; East Grossdale, lying between the two branches of the Desplaines river and surrounded on all sides by grove and stream; and the model suburban center West Grossdale, with its costly and beautiful improvements of all descriptions, where scores of delightful homes, with depots and a beautiful opera house, form the nucleus for Chicago's most charming suburb.

In the past eighteen years he has established twenty-one suburban towns, nearly all now within the city's limits, over one hundred other Chicago subdivisions, has sold over forty thousand building lots and has built and sold upwards of eight thousand houses. Many are the unsolicited testimonials, received by him from those whom he has enabled, by his liberal dealing, to acquire what is so dear to the heart of every true American, a home of his own.

During the years of his business activity, Mr. Gross has been a close student of books as well as of men and affairs, and is the possessor of one of the finest libraries in the West. His successes have not all been along commercial lines, for he has given considerable attention to literature, and has written much verse of a high order, abounding in striking metaphor and poetic imagery. A comedy, of which he is the author, "The Merchant Prince of Cornville," from the University press of Cambridge, has received high encomiums from journalistic sources, and from those whose opinions carry great weight in the literary world. He is a member of all the leading clubs of Chicago and to Chicago art institute many patriotic and military organizations, is captain of the Chicago continental guard, secretary-general of the National society of the Sons of the American revolution, and commander of the Illinois commandery of the military order of foreign wars of the United States. .

Former associate of William M. Evarts was Frederick Hampden Winston, born in Georgia, in 1830, moving first to New York City, and then to Chicago, where he entered into the practice of his profession. He first formed a partnership with Norman B. Judd, which continued up to the time of the latter's appointment by President Lincoln as minister to Berlin. He was afterward associated as partner with H. W. Blodgett until the latter's appointment by Grant as United States district judge. He continued his labors in Chicago until his own appointment by President Cleveland as minister to Persia, in 1885, and then retired from active practice, and gave his entire time to the care of his property, of which he accumulated his full share, and in the care as director in many important companies of the property of others. Mr. Winston was always considered by his compeers to be a

thoroughly read lawyer, gifted with deep penetration, rare powers of logic and an attractive style, both in the form and utterance of speech. He was a leading practitioner of that branch of law which relates to the rights, privileges, and responsibility of railroads and corporations. In this branch he achieved great success, both in reputation and fortune. He is largely interested in real estate and improvements, having been for nearly twenty years connected with the Lincoln Park as commissioner, and a large part of that time as president of the board. He is a gentleman cultivated in his tastes and courteous to all with whom he is brought in contact.

Among the multitudes that came from far and near to the gathering of the nations in Jackson park, there was a universal feeling of regret that its palaces, stored with the garnered treasures of the world, were not destined to endure; that all too soon must be ended the great object lesson which embodied in material form some of the greatest achievements of which mankind is capable. Hence, the desire to perpetuate, so far as was practicable, that which was best worth securing in the ephemeral city of the Fair, assuming definite shape toward the close of the term in a project for the creation of a public museum, in which to preserve as much as possible of the material gathered for the great Exposition. Public interest was aroused, and the measure earnestly advocated, not only in Chicago, but among visitors, exhibitors, and officials from all the participating states and nations,—that is to say, from the entire civilized world.

As the result of several meetings held in August, 1893, committees were appointed for obtaining funds, selecting a building, and gathering exhibits for the proposed museum. Before the Exposition closed, a special act of legislature was passed permitting its establishment in Jackson park; the museum had been incorporated; the South Park commissioners had consented to the occupation of the Fine Arts building; an organization of officials connected with the Fair had secured an enormous quantity of material contributed by exhibitors, and sufficient funds had been subscribed to pay the preliminary expenses. But the amount of these subscriptions was entirely insufficient even for the storage and preservation of the collections thus secured, to say nothing of further accretions, and without a large additional sum, no advantage could be taken of so splendid an opportunity. At this juncture it was that an endowment of $1,000,000 from Marshall Field, supplemented by the donations of a few intimate friends, dispelled all doubt of success. A working staff was appointed; the task of gathering material, whether by purchase or contribution, was vigorously prosecuted, as also was that of installation, and on the 2nd of June, 1894, the Field Columbian museum was dedicated and opened with appropriate ceremonies.

Such was the origin of an institution which, though usually identified with the Exposition, is far from being a mere memorial; for although, as yet, almost in its infancy, its scope already covers the entire domain of science, its collections so utilized, arranged, and classified under the manipulation of professors skilled in their several departments, that what enters the building as so much matter, becomes under their touch, as though inspired with the breath of life.

The museum is divided into four principal departments; Geology, Botany, Zoology, and Anthropology, each with several subdivisions, in addition to which there are special or monographic collections, including Textile and Ceramic industries, Gems and Jewels, Transportation, Columbiana, and others. From the beginning the work of the institution has been upon strictly scientific lines, ambitious and progressive. All the modern and most efficacious methods have been adopted, and in a number of instances marked advances may be noticed in manner and process, in detail and technique. One of the

strongest features in the policy of the museum has been its individual field work, expeditions for research and collection having been dispatched as far northward as Alaska and as far southward as central Africa.

A series of publications based upon observations, investigation, and description of work in the field or in the museum has added twenty-five contributions to scientific literature, and discourses delivered in one of the large halls of the institution have attracted appreciative audiences to nearly one hundred illustrated lectures. A reference library containing 14,000 books and pamphlets, and a reading room, both accessible to the public, adjoin the lecture-hall.

The building in which the Field museum is now established, while not constructed for such occupation is well adapted for its present use, and as to its merits as an architectural composition it need only be said that it was universally regarded as the gem of the Exposition. Built largely of brick and iron, its ground floor alone, that of a dome-covered main building, with connecting annexes extended on the same artistic lines, covers an area of nearly seven acres, a wide gallery surrounding four great courts whence there is access to eighty exhibition halls.

To state that this immense floor and mural space is already covered with collections installed and arranged by men of science on scientific principles, embracing but not completing the entire scope of the institution, may suggest a general, but by no means adequate idea of the progress of the museum during the brief period of its existence. Yet it is less the collections themselves than the high character and purpose associated with them that give to this noble institution its broadest emphasis and to its mission a special dignity. Of Marshall Field, not only as the founder of the museum which bears his name but as one of the most able business men in a metropolis famed for the ability and enterprise of its merchant princes, as one who in all measures tending to the public weal has ever at heart the welfare of his adopted city, some further mention is here in place. His career, though straight and narrow is the path which led to prosperity, may serve as an example to those who are struggling for success. Moreover, it is by such men that Chicago has been exalted from a frontier village into one of the leading centers of the world's commerce and industries.

The son of a New England farmer, his early training differed not from that of other children descended from the stout old Puritan stock of Massachusetts, the place of his birth being Conway, in Franklin County, and the date, August, 1835. His education completed in public school and academy, at seventeen he entered upon his business apprenticeship in the town of Pittsfield, serving for four years as clerk in a dry-goods store, and mastering so far as could be mastered in this limited sphere of action, all the details of his trade. Removing thence to Chicago in 1856, when the metropolis of the west, though containing less than 60,000 inhabitants, already gave promise of its future greatness, he secured employment in a similar capacity with one of its pioneer establishments, his ability and zeal ere long obtaining for him a partnership. After some changes of membership, which need not here be mentioned, he became in 1881, the head of the firm known, since that date as Marshall Field and company.

The conflagration that destroyed in a night the city reared in well-nigh half a century, caused a loss to the firm of $3,500,000, about seventy percent of which, after much delay and difficulty, was recovered from insurance companies. Its building, which shared in the common ruin was then replaced by one which has since been used entirely for retail trade, and with later additions covers more than half a block in the heart of the business center. It is a stately edifice, though in architectural

features surpassed by the structure completed in 1887 for wholesale department. The latter, which is of granite, simple and massive in outline, but elegant in its simplicity, is from the plans of Henry H. Richardson, and in truth is a model of business architecture, one whose design has been freely imitated in Chicago and other cities of metropolitan rank.

From $12,000,000 a year before the great catastrophe of 1871, the sales of the firm increased to nearly $40,000,000 in 1897; to say nothing of those of branch establishments in England, France, Switzerland and Germany. But this increase in sales gives no adequate idea of the increase in business when change in values between the two periods is considered. Thus it will be seen that the fire, which wrought no permanent injury to Chicago, did not greatly impair the business of Marshall Field and company.

And how have such results been accomplished? Simply by close application to business and by common sense business methods; by purchasing for cash goods of superior quality, and selling them, either for cash or on short credits, to responsible customers, who are as careful in meeting their obligations as they are cautious in contracting them. Thus is secured in one department the business of honest and successful merchants; in the other the choicest and most desirable of retail trade. Add to this a strict attention to details, and a firm but kindly supervision over an army of employees; securing through prompt recognition of merit, and through kindness and consideration for all, their loyal and faithful service, and the secret of Marshall Field's success is sufficiently explained.

But of the fortune accumulated during a career of nearly two-score years as partner or head of an establishment, which is now among the foremost in the United States, a portion only and that probably not the larger portion, has come from the proceeds of his business; for a firm whose transactions are on such a gigantic scale must sell at a narrow margin of profit. None know better than does Marshall Field the truth of the maxim that it is easier to make money than it is to keep it, and in choosing his investments he is no less careful than in his vocation proper. His purchases of real estate have been as fortunate as they were judicious, and so with his purchases of bonds and stocks, of which at times he has been one of the largest holders in the west. Yet he never speculated; never bought on margin; never mortgaged his property, and never placed his name on a promissory note. He who mil lay these lessons to heart and profit by them, has already his passport to success.

While responding liberally to the calls of charity and to all just demands on his purse, the founder of the museum that bears his name, is by no means an indiscriminate giver; for he alone gives well who gives wisely On himself and his home he spends but little,—in proportion that is to his fortune—yet that home is always the abode of elegance and refinement, but never of ostentation. He is a member of several clubs, but does not waste his time on fashionable society, and those whom he meets, whatever their condition, he treats as equals, for he does not belong to the large class of mankind to whom that which is best in human nature is reflected in the looking-glass, and that which is worst is embodied in the persons of their fellow-creatures. Though averse to all notoriety, as is apt to be the case with men who think not highly of themselves, there is in his career a message which the world will be glad to receive and will not readily forget.

Among those who contributed funds for the Field Columbian museum, in addition to Marshall Field himself, whose subscription, as I have said, was $1,000,000, were Harlow N. Higinbotham and George M. Pullman, each of whom subscribed $100.000, other donations including one of $50,000, from Mary D. Sturges, together with Exposition stock to the value of nearly $1,500,000, on which a

small dividend was paid. The director, Frederick J. V. Skiff, when taking charge of the museum, was in truth confronted with a herculean task, and how well he has accomplished it can only be judged from a personal visit to this young and yet wonderful institution, which of its kind is already one of the finest in the world. In his address on the opening day, after mentioning some of the principal additions acquired since the close of the Fair, he thus described the task of gathering and installing the contributions from the various departments of the Exposition:

"And now began the tremendous task of gathering the vast amount of material from every part and corner and stretch and recess of these vast grounds; from all of the buildings, large and small; from the Midway Plaisance and from Wooded island; from the Forestry building to the Fisheries building. Hundreds and hundreds of tons of exhibits, collections, and objects of every describable character were transported to this building in which we are assembled. Then the selection, alteration, arrangement and rearrangement and elaboration began. Gradually hall by hall was emptied and as the objects of art left the building, a mass of material poured in, heterogeneous and appalling in extent. And the beautiful products of the artists brush and the sculptors chisel,—ours for only a summer—were supplanted by what we see in these halls today; a sequential and systematic exposition of the wonderful and instructive things of the world we live in, began to grow. Through the same door streamed boxes and bales from the Transportation, Mining, Forestry, Electricity, Manufactures, Liberal Arts, and state buildings, from government buildings and from Plaisance; objects from the remotest lands and the most diversified climes!"

And thus did Edward G. Mason, president of the Chicago Historical Society, conclude his oration:

"With such associations, and characteristics, and possibilities the Field Columbian museum is opened to the people. They are the beneficiaries. For them and their children and their children's children it is to fulfill its destiny. The first museum, from which the name has been handed down through the centuries established, by the old Egyptian king in the once proud city of Alexandria, was set apart for the use of one privileged class alone; but this museum knows no distinction of class or condition of men; it holds for all its wealth of opportunities for instruction and for research, and its treasures are to be had for the asking. No man can measure the amount of pure and elevated pleasure, of real and lasting benefit which will be derived from it by the multitudes who will throng its halls from this time henceforth. Nor can we lightly estimate the continuing tribute of thankfulness which they will gladly pay to its benefactors, and especially to those whom we honor as its founders. To them it is not easy to render a fitting need of praise; but they already have a reward in that consciousness of a grand deed grandly done of which nothing can deprive them. This great creation is due to a munificence far more than princely. A prince can only give his people's money; these donors have given of their very own freely, lavishly, for the good of their city and of their own race. As we enter into their labors there enter with us the rejoicing shades of the philanthropists of all time to welcome this latest exemplification of the spirit of those who love their fellow-men, and in their shining list will forevermore appear the names of the founders of the Field Columbian museum."

In July 1836 came to Chicago from Vermont, by way of New York, Mark Skinner, son of the governor. He was admitted to the bar immediately on his arrival, and in 1839-40 was elected city attorney. He was master in chancery for Cook County for many years, but his first purely political appointment was by President Tyler to succeed Justice Butterfield as United States district attorney the district then embracing the entire state. In 1846 Mr. Skinner was elected a member of the Illinois legislature and

was made chairman of the finance committee at that time the most important body in the house. As chairman of this committee he drew up and procured the passage of a bill for refunding the state debt which brought order out of financial chaos and placed the credit of the state upon a firm foundation. In 1851 he was elected judge of the Cook County court of common pleas, now the superior court of Cook County, but declined a reelection in 1853 on account of ill health. The labors of the bench at that time were very great, and Judge Skinner was the sole judge of a court where all the criminal and nine-tenths of the civil business of the county was transacted, which imposed an enormous burden of care and responsibility. So severe a strain greatly impaired his health, and he was obliged to abandon the practice of his profession, but as the financial agent of moneyed men and corporations of the east, he invested large amounts of money in Chicago real estate and the Connecticut Mutual Life Insurance company paid a high tribute to his integrity and honor in a memorial drawn up after his death. The material interests of Chicago had his care and he was a director in the Galena and other railroads, the State Insurance Company, the Chicago Marine and Fire Insurance Company, and the Chicago Gas Light and Coke Company.

To one trust Judge Skinner gave his best thought, and perhaps no other work of his will have a more lasting influence than what he did as executor and trustee under the will of the late Walter Loomis Newberry. He was Mr. Newberry's intimate friend for many years. He drew his will; and how much we are indebted to him for the munificent bequest which, in the establishment of the Newberry Library was duly executed may never be known. From the first years of his residence in Chicago he was the earnest friend of the common school. In 1842 he was elected one of the seven school inspectors, and the Skinner school was in 1859 named after him. He was one of the organizers of the Young Men's Association of Chicago, afterward changed to the Library Association, the predecessor of the present Public Library. And he was also a member of the Chicago Lyceum, which in those early years was a prominent institution in the city.

One of the few eminently successful bicycle manufacturers is Alfred Featherstone, who by his own efforts accumulated a fortune amounting to several million dollars in this industry. He is one of Chicago's representative merchants and resides in a suite of luxurious apartments at the Auditorium hotel in that city. Like thousands of other successful business men Mr. Featherstone was born on a farm. New York is his native state. He went to Chicago in 1882 and three years later entered the business of making bicycles, velocipedes, and baby carriages. Under Some idea his able guidance and aggressiveness the industry assumed large proportions of the volume of business transacted by his firm may be obtained from the fact that the books show in twelve years an increase of business from $70,000 in 1885 to $3,000,000 in 1897. In 1890 Mr. Featherstone discontinued all manufacturing except bicycles. That part of the business needed and received thereafter his sole attention, with the result that the production of bicycles from that year has amounted to more than 70,000 wheels annually. One year, 1896, the firm marketed 78,000 bicycles. The factory is an imposing five story edifice, with a total of 175,000 square feet of floor space. The factory is equipped with hundreds of automatic machines, which a force of 1,100 men operate. In 1889 Mr. Featherstone introduced the first pneumatic tire for bicycles in America. During the two years following his firm manufactured and marketed that device in this country with profitable results. A new type of chainless bicycle was introduced which it is anticipated will prove popular. Mr. Featherstone is a man of excellent attainments. He has travelled extensively, is well read, is a lover of art and literature and knows what constitutes the thoroughbred in a horse.

An eminent scholar and medical practitioner of Chicago was N. S. Davis, native of the state of New York, where he was born in 1817. Although for many years burdened with a large medical practice, he found time to endear himself to the hearts of his fellow-citizens by numerous acts of generosity and philanthropy which were no small draft upon his purse as well as his time and energy. In 1850 he gave a series of public lectures in the old State street market of Chicago, for the purpose of creating public interest in sanitation, especially in the introduction of a general system of sewerage, and an abundant water supply, and the raising of money for the establishment of a public hospital, there being no institution of this sort at that time in Chicago, then a city of only 27,000 inhabitants. A sufficient amount of money was raised to establish twelve beds, which constituted the beginning of Mercy hospital, the oldest and now one of the most important hospitals in the city, having accommodation for more than 450 patients. Doctor Davis was also one of the founders of the Northwestern University, of the Chicago Academy of Sciences, the Chicago Historical society, the Illinois State Microscopical society, the Union college of law, in which he is a professor of medical jurisprudence, and of the Washingtonian home for the reformation of inebriates. He was associated with Stephen Higginson, Charles Walker, and other citizens in the organization of the first association for the systematic relief of the destitute.

William Deering, creator and president of the Deering Harvester Company, is one of the many remarkable men who have grown to manhood among the hills of the pine tree state. His ancestors came from England to Massachusetts in 1634, and his parents. James and Eliza Moore Deering, began their long and happy married life in South Paris, Maine, in 1822. This remarkable couple were vigorous in body and strong in mind. From them their only son, who was born April 25, 1826, inherited a constitution of great endurance and energy, together with an intellect of piercing quickness and steady power. His wise and pious mother trained him with unfaltering care and tender discretion; his enterprising father stirred within him the genius for business that was afterward to make him eminent. The eager lad received such education as the district school, the neighboring academies, and the Maine Wesleyan seminary could furnish. And for a brief period he taught school.

His thoughts turned to medicine; he had, in fact, begun his studies with a neighboring physician when an exigency in his father's affairs recalled him to South Paris. Laying aside his books and his ambitions, he became assistant, and. afterward in 1849 the manager of the South Pans Woolen Manufacturing company.

Here he learned to handle men and machinery on a small scale. But the merchant in him soon swallowed up the manufacturer. He opened a country store in South Paris and conducted it with great success. In 1849 he married Miss Abby Barbour, a woman of rare loveliness and nobility of soul. Her only child, Charles Deering, born in 1852, is now the secretary of the Deering Harvester company. His mother died when he was hardly four years old. In 1861 Mr. Deering, who had meanwhile married Miss Clara Hamilton of Maine, removed to Portland and began the manufacture of clothing for the union army, and there also he founded in 1865 the well-known house of Deering, Milliken and company, whose business quickly extended to Boston and New York.

In 1870 Mr. Deering was already wealthy according to the standards then prevailing, and he began to think of retirement and of leisure. Entering his office one day he challenged his partner to buy him out. “I will make you an offer in the morning," responded Milliken. The morning brought a proposition. "Agreed," said Mr. Deering promptly, and the future president of the Deering Harvester

company had retired from active business. How little he imagined that South Paris and Portland had only prepared him for his real career! But so it proved to be. It came about in this wise. The west had early cast a spell upon him. He had ridden frequently on horseback across the prairies and through the swollen streams of Illinois and Iowa. The regions of the great lakes and the Mississippi fascinated him with forecasts of vast populations and unbounded prosperity. Moreover, his friend, the Reverend E. H. Gammon, who had gone west in search of health, was engaged in making reapers at Piano, Illinois. To him Mr. Deering advanced large sums for the extension of his business. The Marsh harvester, which was destined to revolutionize the gathering of grain, attracted Mr. Gammon's attention in 1865, when he bought an interest in the patents of this great invention. But his health failing he urged Mr. Deering, the retired merchant, to come to his assistance. The call received prompt answer, Mr. Deering came to Illinois immediately, and the vast works at Chicago are the visible result of his arrival. For the story of the Deering harvester is singular and none too well known.

Obed Hussey made the first successful reaper in the United States. This was patented in 1833, and had no competitor of much practical value until 1845, when Cyrus H. McCormick obtained his second patent, and placed his first successful machines upon the market. The Marsh harvester, which has now supplanted every other form of reaping machine, was built first in 1858, and this is the machine that owes its perfection in such great degree to William Deering’s energy, sagacity, and daring. For directly he took hold of Mr. Gammons business, the firm becoming Gammon and Deering, he saw the importance of an automatic binding device to make this harvester complete. Owing to his untiring efforts wire-binders were placed upon the market in 1874, and in 1875 large quantities of these were sold. Wire, though, was expensive. Bits of wire mixed in with the straw made unhealthy fodder for the cattle; the millers too complained because their bolting cloths were torn by bits of wire in the wheat. Could twine be used instead of wire? Mr. Gammon was conservative and cautious. He had no belief in the practicability of a twine binding harvester. So in 1878 Mr. Deering bought him out, becoming the sole proprietor of the Marsh patents, and of the manufacturing plant at Piano. He now began in earnest the study of an automatic twine-binder. John F. Appleby had invented one. Mr. Deering, to whom it was offered saw it, examined it, and approved it. He agreed to employ Mr. Appleby to help perfect it. In 1880 three thousand of the new machines were made. A crisis intervened before they could be marketed successfully. The twine in use proved to be seriously defective. Every rope factory in the United States was visited by Mr. Deering; every rope-maker returned him the same answer. "A cheap twine, sufficiently uniform and smooth for the knotting devices of your automatic binder, is an impossibility.” There was one exception only. Edwin H. Fitler, afterward mayor of Philadelphia. Yielding to Mr. Deering s urgent offers, this intelligent manufacturer began a series of experiments. And at last a strand of twine was produced that seemed to meet all requirements. This, when tested in the field, proved to be the very thing, and the Deering harvester stood complete in every detail. Complete, but not yet in its most perfected condition.

Mr. Deering now removed his plant to Chicago, partly to obtain better facilities for shipping the enormous product, partly to extend his works. He had determined to manufacture every part of the harvester under his own supervision. He determined too that the frame should be of steel. Size and weight should be reduced to a minimum, and friction must be diminished by roller and ball-bearings. The Deering harvester must sell itself; its manifest advantages must create a never-failing demand. Then too he would himself supply the twine; and thus the business grew around the one central thought, a harvester complete and perfect as the wit of man can make it.

He found it wise also to manufacture rakes and mowers. And a machine for cutting and husking corn began to occupy his mind. Thousands of dollars have been expended upon inventors in order to develop this and other implements for gathering in the waving products of God's bounty and the farmer's industry.

The works at Deering constitute a wonder of industrial intelligence; the company employs 6,000 mechanics, often working night and day, to say nothing of clerks and selling agents. In the twine mills, one-third of all the binder-twine now made is manufactured. The resources of Yucatan and Manila are taxed to supply the fibrous raw material.

Mr. Deering has found rivals and competitors at every turn. His rights have been invaded and assailed. But he has fought his way quietly and resolutely to the foremost place, until one-third of the enormous demand for harvesters, mowers, rakes, corn-cutters, and reapers, is supplied by the company that he controls. His relations with his subordinates and with his work-people have been almost unruffled for a quarter of a century, and his dealings with the farmers during their period of distress were invariably kind and considerate. And yet Mr. Deering has never given his whole mind much less his whole heart to business. When at work he concentrates his entire energy upon the problem before him. But he delights in nature and in books. He thinks earnestly and steadily upon the mysteries of life and society. From his thirteenth year he has been a member of the Methodist church, and he has three times been a member of its general conference. He clings to the old songs and the old gospel, although reflection and experience have invested them, for him, with deeper and richer meaning. The traditions of his childhood have been verified by his observation of the world. "The fear of the Lord is the beginning of wisdom."

He began to give early and he has given often and largely. In Portland, he helped school and hospital and church with cheerful readiness. Since he came to Chicago his generosity has been munificent, reaching hundreds of thousands. This is especially true of his gifts in Evanston, to the Northwestern University, to the Garrett Biblical institute, and to the Young Men's Christian association. Yet these have not excluded other charities. He is a thoughtful and a conscientious benefactor, subscribing liberally to many causes, and listening patiently to many appeals. To the institutions of Evanston he has sacrificed his leisure and devoted no little of his great ability. He is now President of both boards of trustees, retained there stubbornly by his colleagues, in spite of his wish to retire.

He has accepted public office once only in his life; for a brief period he was a member of the governor's council in his native state. Yet he has been an ardent republican since the formation of the party; he believes in freedom and in the stable monetary system and in pure administration for the city and for the nation. He is a patriot, not a partisan.

In appearance he is striking and attractive. A certain shyness in his bearing gives a touch of gentleness to his tall and powerful frame. His features are strong and handsome, tinged in repose with traces of indomitable will and earnest thought, but lighting up quickly in conversation with intelligence and feeling. He is affable and approachable, but he loves seclusion. His attachments are deep and strong; his fireside is his chief delight. His conversation reveals a powerful mind, enriched with continual reading of the best books. He writes with the precision of one who thinks clearly and steadily, and with the beauty that comes from a seeing eye and a generous heart.

Besides his son Charles, already mentioned, he has two children, James, the treasurer of the Harvester Company, and Abby Deering, the wife of Richard Howe of Chicago. Since 1873 he has resided at Evanston, the most beautiful of western suburban towns, where he and Mrs. Deering now spend the summer months in the quiet of their charming home. In the winter they migrate to the south, where Mr. Deering seeks rest from the trying labors of the spring and summer in sailing. The thousands dependent upon his sagacity and energy may well pray that time may touch him gently, and spare his strength for many fruitful years.

A representative man and physician is Nicholas Senn, a native of Switzerland, who came early to America and made Chicago his home. Few men have been more honored by the profession, or have brought more honor to it. He was a voluminous writer on medical topics, especially on surgery, and all his works are standard text-books on their respective subjects. He received the degree of Ph. D. from the University of Wisconsin, on returning from his second trip to Europe. Besides being professor of surgery in Rush medical college, attending surgeon to the Presbyterian and St. Joseph's hospital, professor of surgery in the Chicago policlinic and consulting surgeon of the central free dispensary, he became a fellow of the American Surgical association, honorary fellow of the college of physicians of Pennsylvania, and many other honors and titles from learned bodies in both Europe and America. During a residence in Milwaukee subsequent to 1874, he was appointed attending surgeon at the Milwaukee hospital, and elected president of the Wisconsin state medical society. He perfected the hospital facilities of Milwaukee; and, continuing his original investigations and operations in surgery, became noted on two continents for his bold and successful surgical achievements.

One whose long life and wide experience belongs to history is David Ward, land proprietor, and for the past sixty-two years a resident of Michigan. Think of it, of this region and what it was sixty-two years ago! Little better than primeval wilderness, and what is it now? A garden of the foremost civilization; the heart of a nation whose wealth, power and culture, extend in their influence to the ends of the earth. Mr. Ward was born in Vermont, in 1822, his father, Nathan Ward, being also a native of that state, where he acted as land agent from 1820 to 1837, and was surveyor for Peter Smith, father of Garret Smith, the famous abolitionist. When, in 1836 David arrived in Michigan, by way of the Erie Canal, after four years of service with his father surveying and exploring in the Adirondack mountain region, he taught school for several years, meanwhile graduating as surgeon and physician at the Michigan University, though never practicing his profession. Since that time he has accomplished many things. He surveyed many leagues of land in various parts between Lake Michigan, Puget Sound, and the Gulf of Mexico. He purchased large tracts of timber land, and built and owned one hundred miles of railway over his own property. He always lived temperately and seldom indulged in debt.

In common with agriculture and manufactures the mining industry continues to grow, but unlike the others it cannot always continue to grow, unless there is more of mineral wealth in the depths of the earth than on the surface. A miner's life is often one of vicissitudes, but it would be difficult to find in the experiences of any one man a wider variety than in those of J. R. de la Mar. Born in Holland, in 1848, in six years he was an orphan; at seven he ran away to sea, hiding himself on an East India trader until out of sight of land, when he was made cabin boy and cooks assistant; in sixteen years he was captain of a vessel. Then he went into the business of diving after sunken vessels along the coast of the United States, and succeeded in raising forty-three hulks. Next he loaded a vessel with flour, tobacco, beef, salt, calicoes, copper, and guns and ammunition, and sailed for the coast of Africa,

where he traded with the Negroes for ivory, gum copal, palm oil, bees wax, and hides. The traffic was profitable, but the climate was deadly, and after three years de la Mar abandoned the sea and made his way to Colorado, studied mining there and in Chicago, and then bought the Terrible lead mine in Custer county, Colorado, for $3,500, worked it profitably until 1886, and sold the mine to the Omaha Smelting company for a fair profit. Two years of travel among the mining camps resulting finally in locating on a mountain, six miles west of Silver City, Idaho, where he bought a group of claims for a small sum. By filing a number of other claims, he came into control of a property a mile long by three-fourths of a mile wide, covering the whole mountain. Many large veins of gold and silver were discovered on this property by means of tunnels driven through the mountain, and the owner sold half his interest in 1891, after he had taken about $1,500,000 from the mines, to the de la Mar mining company of England for $2,000,000.

The great brewing industry of Chicago is ably and honorably represented in the person of Charles H. Wacker, who was born in Chicago in 1856. In 1872 he entered into the employ of a grain commission firm on the board of trade. In 1875 he left the firm and travelled extensively throughout the United States, and in Europe, attending a commercial college and the conservatory of music, in Stuttgart. In 1880 he joined his father in establishing the malting firm of Frederick Wacker and Son. Two years later the Wacker and Birk Brewing Company was organized with his father as president and C. H. Wacker as secretary and treasurer. He became also president of the McAvoy Brewing Company, director in the Corn Exchange national bank, Chicago Title and Trust company, Western Stone Company, and president of the Chicago Heights Land association. He was a director of the World's Columbian Exposition, and served on the ways and means, ceremonies, foreign affairs, and electricity and machinery committees.

As regards growth, as in many other things, Chicago is without a parallel in any age or nation. Small communities may sometimes increase rapidly, but whoever before heard of an urban population of 500,000 becoming 1,100,000 in ten years, as was the case with Chicago from 1880 to 1890? Still greater then will be the marvel if in 1900 the city population numbers 2,200,000 or thereabout, as it is sure to do. And here we may as well pause, for should the population in 1910 be 4,000,000; in 1920, 8,000,000; and in 1930, 16,000,000, there would scarcely be room for greater surprise than over what has already come to pass. It is obviously impossible, when population is increasing at such a rate, that commerce and manufactures should not to some extent keep pace with it. The fire of 1871 has not its counterpart in history. It began on the 8th of October, and raged for three days laying in ashes the best built portion of the city, covering an area of 2,100 acres or over three and a fourth square miles. There were 17,450 buildings destroyed, rendering houseless 98,500 persons, killing 200, and destroying property to the value of $192,000,000, only $44,000,000 of which the insurance companies could pay, 57 companies suspending. In vain we search the annals of nations for anything like it. The fire of Paris, by the commune in 1871, the year of the Chicago fire, caused a loss of $160,000,000; Boston loss, 1872, $75,000,000; Moscow, 1812, $150,000,000; London, 1666, $53,000,000; Hamburg, 1842, $35,000,000; Constantinople, 1848, $15,000,000, 1870 $26,000,000; St. Johns, 1877, $12,000,000; Seattle, 1889, $20,000,000; Portland, Maine, 1866, $11,000,000; St. Thomas, 1805, $30,000,000; New York, 1835, $15,000,000; Pittsburgh, 1845, $10,000,000; St. Louis, 1851, $11,000,000; San Francisco, 1851, $10,000,000.

With the $60,000,000 borrowed by Chicago in the east to rebuild the burned district, came a large accretion of brain and muscle to share in the resulting activity. All comers of that quality were warmly

welcomed, and a new era began, one of unprecedented prosperity for the city-builders of Lake Michigan. Since the costly lesson of 1871, iron in building has largely taken the place of stone, which crumbled beneath the heat in both the Chicago and Boston fires.

New impetus was given to the city by the Illinois and Michigan Canal, 96 miles in length, connecting the south branch of the Chicago River with the Illinois River at La Salle, and giving continuous water communication between the lakes and the Mississippi river. Some such work was the Tequixquiac tunnel draining the valley of Mexico, over which viceroys and presidents wrestled with opposing forces for four hundred years; or it may be the Panama Canal, which has failed thus far, bringing financial disruption to France, and ruin and death to thousands,—though the former is about one-third and the latter one-half the length of the Chicago Canal. While the wiseacres at Washington are contemplating with profound sagacity the question of the Nicaragua Canal, and devising the best means how not to do it themselves nor allow anyone else to do it, the men of Chicago take up and execute a work almost as great without fuss, without friction, without clamor as to financial aid, or calling the attention of the world to the great things they had done, or were doing, or even considering that they had done anything great at all. Yet it is a great work, and well done, and an achievement modestly regarded by men accustomed to great achievements and little talk about them. The project was first discussed in 1814; in 1823 a board of canal commissioners was appointed, ground broken in 1836, and in 1848 the original canal work completed at a cost of $6,500,000. This, however, was but an ordinary horse-boat canal, its highest point being 12 feet above the level of the lake. In 1880 it was deepened so that the highest point was 8 feet below the surface of the lake. So great were the advantages derived from this change of depth, which dispensed with locks and secured a current of a mile an hour, keeping clean the channel and carrying off the sewerage of the city, that again it was determined to deepen and enlarge, cutting through 30 miles of earth and solid rock, and make of it a ship canal of the first class, good for all time and for all purposes, at a total cost of some $40,000,000, It is no exaggeration to say that this is one of the boldest schemes ever conceived or executed by man. Ten miles of it is through solid rock, with a depth of 36 feet, width 160 feet, and sides cut perpendicular. Other ten miles of it plow through bed rock underlying tough boulder clay, and yet another portion of it through river muck and glacial drift, in some places to the depth of 38 feet. By means of this immense ditch the level of all the lakes is changed, international relations disturbed, cities and harbors improved or injured, and 300,000 cubic feet of water a minute taken from Niagara Falls and turned into the Gulf of Mexico. Other questions yet to arise will have to be solved, as the effect of this floodgate upon the Mississippi river, its banks, its cities, and its periodic overflows.

Mighty, indeed, is the power of mind, when a handful of men on the northern border of this great commonwealth thus give a hundred inland cities seaport facilities, and by pressing the button cause to dance, either for weal or woe, millions of people all along the entire length and breadth of the land, a thousand miles and more to the east, and a thousand miles and more to the south. Well may the cities of the seaboard look to their laurels, and to their trade, when this Midland Queen by her magic arts can beckon to her side from over the ocean the world's commerce, with the world's admiration and tribute; for already the annual tonnage entering this port is greater than that of any other in the two Americas, be they inland or maritime.

There are other physical advantages tending to the development of a large city centering in Chicago, but of the true cause I will speak later. For a wide region round there is flat fertile land, as before mentioned, easily covered by a network of railways; with a large portion of this wide area Chicago has

water communication, the lakes alone having some 3,000 miles of coast line. By the Welland Canal vessels may go from Lake Michigan to Montreal, and there connect with ocean steamers for Europe, or may proceed to the several ports of Europe direct and discharge their cargoes there, though it is found advantageous to transfer at Montreal. By other canals and waterways Chicago boats may reach New York and the interior of New England. Further facilities for extending and enlarging the commerce of this young giant metropolis are in constant agitation and progress. The railroad traffic is large and remunerative; beginning with a line toward Galena in 1842, thirty years thereafter there were 10,000 miles of road tributary to Chicago, with 350 trains coming and the same number departing daily; gross receipts $100,000,000 and $40,000,000 annual profits. In 1880 the receipts of 46 railways were $138,659,155; working expenses $73,089,185; net income $61,093,612. Michigan, Wisconsin, Indiana, and Ohio are covered with railways, which, owing to the uniformity of the flat and rolling surfaces, the absence of any considerable mountains or hills, and the presence of coal and iron, are everywhere easily constructed and at comparatively small cost.

The commerce of Chicago, which in 1852 was $20,000,000, at the time of the fire, less than twenty years later, had reached the amount of $400,000,000, and has increased many fold since then, the leading articles of traffic being bread stuffs, live stock, dry-goods, groceries, wool, hides, lumber, and leather. It was admitted as early as 1854 that Chicago was the greatest grain depot in the world. So in meat-packing, agricultural implements, and many other industries, this city is without an equal. The iron and steel industry of Illinois is very large; Rock Island has a government arsenal for the manufacture of ordnance. The Lake Superior iron and copper mines with cheap transportation, cheap fuel, and abundance of food, stimulate manufactures. Wisconsin and Michigan do a large business in sawed lumber, furniture, agricultural implements, flour, leather, tobacco, carriages, malt liquors, machinery, and woolen goods. Of Chicago manufactured products, which in 1890 amounted to $664,000,000, there were from slaughtering and meat-packing $194,000,000; agricultural implements $12,000,000; foundry and machine shop products $30,000,000; iron and steel $24,000,000; furniture $13,000,000; steam and street cars $21,000,000; lumber $17,000,000; distilled and malt liquors $12,000,000; soap and candles $10,000,000, Other great present industries are boots and shoes, pianos and organs, bicycles, drugs and patent medicines, grain and produce, dry goods and clothing, electrical supplies, cigars, coffee, carriages, and hardware. The north, west, and south divisions of the city are connected by bridges and tunnels. Vast sums have been spent on the water front and harbor; on docks, wharves, slips, and breakwaters; on parks and boulevards; on street railways, elevated and surface, which intersect the vast plain over which the city spreads, the growth and extension of the latter of late years having been greatly stimulated by the application of electric power. The water system calls forth universal admiration, the city being supplied through a brick tunnel extending two miles out into the lake, into which the water enters through a grated cylinder, and is pumped up into a stone tower at the shore end.

But the half has not been told, the true spring of action has hardly yet been touched. What then, is the cause of Chicago's greatness? What are the requisite characteristics of the builders of a great city? These are questions oftener asked than answered, or answered in a way that gives no enlightenment. First of all it was unquestionably the men; and secondly, and thirdly, the men. Most favorable, indeed, are the conditions, and great the possibilities; but there are conditions as favorable and possibilities as great in other places where there are now no cities of two millions population. If there is one all-determining tide in the affairs of men, there are several such tides in the destinies of cities. If at any

one of the critical periods of progress there had not been present men of intelligence and nerve, of inflexible will and iron endurance, the city's growth would then and there have been retarded or wrecked.

A niggardly policy on the part of the first man, or the second, or the third, who came into the possession of any considerable tract of land adjacent to Fort Dearborn, might have sent enterprise elsewhere. So with regard to the drainage canal, transportation policy, municipal government, and social, intellectual or evil-minded men! Where has ever been seen such recuperative force and bold action and consummate wisdom and skill as were manifested by those who were in a moment hurled from their proud prosperity by the fire of 1871? Where has ever been found or where ever will be found again, men with the ability, money, and inclination united, to plan and execute that most exquisite vision of the ages, the White City of 1893? Higinbotham, Palmer, Davis,—these are they who wrought this miracle. In Chicago, the wonder-city of the century, this fairest of scenes the sun ever shone upon was conceived and brought forth. And all the world came and drank their fill of the glorious beauties, and went their way, their hearts and voices filled with praise.

And so upon every issue affecting the welfare of the city from first to last; men of enterprise, integrity, and indomitable energy have come to the front, conferred, and then pressed forward as one man. To conceive was to determine, and to determine was to do. No wonder that prophecies as to further accomplishment regarding the upbuilding of the city seemed tame to those who had already performed so many miracles. It was no idle boast which said in a variety of words and ways, great as we are now, we shall be tenfold greater; for when the tenfold greatness came, behold it was twenty fold! And all in one short century; the most of it, indeed, done in half a century; within the term of a single ordinary life. How old are European cities of two millions and more inhabitants? Two thousand years; three thousand years. And seventy years ago Chicago was little more than a hamlet.

Men did this; and never were greater men or greater achievement. Caesar and Napoleon could destroy, but were they able to create? The Pharaohs built the pyramids; but with all their enslaved Egypt, all of the Pharaohs combined could not have built Chicago. Babylon was beautiful, and Thebes, and Palmyra; but all the beauties of all the ancient cities combined would not equal the display in Jackson Park in 1893. Money? None of them ever said they did not care for money, property, wealth. But money, though it may have been to some extent an end was primarily a means. There were all the time, all through this incubation, many things more highly to be prized than money; among them the true welfare of the city, progress, improvement, achievement. The citizen was not rated wholly at what he possessed; but what has he done? What has he given? These were the questions which determined fair fame, and made the men of this city clasp hands as brothers.

Sitting enthroned at the head of Lake Michigan, this Midcontinent Queen commands the fields and forests, the mines and manufactures of the north and west, dominating likewise in no small degree the commercial destinies of the south and east. From every quarter come pouring in upon her the wealth of raw material, which under her magic manipulation is transformed and sent forth largely increased in value. Nature has done much for her, but her own sons have done more. Nature was not alone in determining the exact spot on which should be wrought out this wonder of civilization,—instance the Illinois and Michigan Canal, before mentioned, begun early in the city's life, which showed at once the quality of enterprise inherent in her citizens that might be depended upon for the future, and which proved an important and direct factor in the development of the city's best

interests. That is to say, had every dollar spent on that great ditch been ten dollars, and were the canal of no value whatever to anyone, the money would have been by no means thrown away; for it was all this time educating these men, teaching them how to unite and overcome difficulties, how to trust each other, how to dare and to do. Nor were these early lessons ever forgotten. And that is why such grand things could be done in Chicago as were subsequently done. like planning and bringing to successful issue the Columbian Exposition, which cost $38,000,000. And would one of the men who helped to make up these millions wipe out the glory of the achievement for twice the cost?

Already the greatest railroad center in the world, Chicago is fast becoming the world's financial center, and center of population. Trains over twenty-two roads run constantly in and out of the city over their own rails; which roads, with their auxiliaries, make tributary 100,000 miles of track, and lay under contribution the resources and wealth of twenty-four sovereign states. All this is directly due far more to the energy business, enterprise, acumen, and dash of the leading citizens, who were quick to see and strong to strike, than to the natural site and natural surroundings, which latter, however, are by no means to be underestimated. While the less aggressive minds of milder municipalities were longing and considering, the I WILL spirit of Chicago was aflame and active. From the first this Midcontinent Queen has been fortunate in possessing in her foremost people those in whom united a love of their city, amounting to an intense civic pride in all matters affecting the welfare of the municipality, with a remarkable harmony of purpose and action in the consummations of their determinations. This can be no better illustrated than by again referring to that marvel of modern achievements, the Columbian Exposition. There had been world's fairs before, some of them very creditable ones. What more could be attempted? What new features introduced? What notable results accomplished which had not already been evolved from the others? It had become by this time a confirmed habit of Chicago to do things better than they had ever been done; else why do them at all? It would be no easy matter to excel the last Paris Exposition, conceived and carried out to perfection, it would seem, in the world's pleasure metropolis, the center of art and refinement, by a people able and accustomed to manipulate great shows, and whose business it had long been to please.

To do this must be found united in one person or place, greater ability, greater energy and enthusiasm, and a willingness to spend more money than ever London, Paris, Berlin, or New York had spent or would care to spend on any international display. In no other place, in no other city or community on earth could these essential and united qualities and conditions have been found.

But what should be the new features which, added to the old, should draw to the shore of Lake Michigan all the world? Hitherto, for the most part, the world's material side only had been present at these displays. There were the intellectual, the moral, and the aesthetical aspects of humanity; might not these also be brought together in convention? But how? And how were the nations of the earth, civilized and barbaric, to be brought to believe in and to patronize it? How about art and education, and religion, and all those sentimental and ideal properties of mankind, as real in their unreality as things of sense and form substantial? These were questions difficult of solution; but if not difficult they were nothing to Chicago. The time had long since passed when matters were made attractive by reason of the ease of their accomplishment. In the proposed display the immaterial should be united with the material, while the latter should be enlarged and glorified, and set in such surroundings as the world had not yet dreamed of.

And it was done. And from near and far came the world's foremost and best to meet the foremost and best found there; the men and women of genius and refinement, for woman was given her place; the specialists in all the various branches of theory and practice, of art and literature and learning, of education and religion; and these great minds met and held converse, and through the friction of new and noble thoughts thus brought in contact were generated other new and yet nobler thoughts. A shrine was here set up, greater, more inspiring, and infinitely nobler than that of any Mecca; a shrine to which millions resorted and went away wondering and asking themselves. Will the like of it ever again be?

And then the beauty of it all, the splendor of the temples devoted to science art and industry, and the radiance of their surroundings! Search the cities of Assyria, of Egypt and of India, of ancient Greece or modern Italy, and no such examples of art and architecture can be found. Instance the artistic mingling of land and water, of architecture and statuary, of fountains boats and people; the Court of Honor, and Wooded Island; Asia and Europe at play in the Midway Plaisance; the several palaces devoted specially to the fine arts, to woman, to electricity, to the useful arts, to agriculture, mining, manufactures, and the rest. The canal and gondolas,—medieval Italy brought to Michigan Lake; the street of state buildings,—and never before such a street, every house the home of an empire; long vistas of palaces, idealized scenes silvered by the summer's sun like pieces out of a celestial city, the genius of art and architecture captured and brought to bay by these men of Chicago. What fairy land ever equaled the White City by moonlight? And all these of which I speak were but the setting and the shell; the contents of the many buildings comprising the specimens and contrivances of civilization, the concentrated achievements of man from first to last the results of labor in all ages, nations,—I cannot even speak of them here. If ever man may be justly called great, then are those great who with their minds conceived, and with their hands executed, those marvels of utility and beauty, pouring out their money like water in proof of their opinions, good faith, and integrity, apparently with supreme indifference whether any of it were ever returned to them or not.

And yet the pilgrims thither, on returning to the city at night, or being brought to observe it by day, were wont to exclaim, —"After all, the greatest wonder of the Chicago Fair is Chicago."

Ohio is still sending forth her full quota of men who make their mark in the various occupations of life. A native of that state was Calvin S. Brice, whose ancestors were of Maryland and Pennsylvania stock. Beginning with nothing, Mr. Brice obtained a college education, studied law, practiced in the courts, went to congress, and acquired a fortune in railways. The man who has done this does not need to have his qualities and characteristics cataloged; they will forever speak in his works. He gained a clear insight into the working of railways in the United States while acting as attorney for several large corporations. Quick of perception and equally quick of execution, he proceeded to put into operation some of his advanced ideas as to the development of railroad properties. He recognized that the extension of systems, and the opening of new territory would enhance the value of property. This idea developed and resulted in the construction of the New York, Chicago and St. Louis railroad, generally known as the Nickel Plate, a name given to the road in jest, by Mr. Brice. This line was constructed on a parallel with the Lake Shore and Michigan Southern railroad and was built because the latter road had refused to enter into a satisfactory joint traffic arrangement with the Lake Erie and Western Railroad Company. The Nickel Plate was built from Chicago to Buffalo, and from the time of the inception of the plan until its completion few, other than the promoters themselves, believed that anything but financial disaster would result, or that the proposed line would ever be completed. The

Lake Shore management waited patiently for the new company to collapse, anticipating that the abandonment of the enterprise was only a question of time. The syndicate, headed by Mr. Brice, continued the rapid construction of the road and owing to his skilful financial management, the necessary means for its completion were assured. The Lake Shore company found its road paralleled by a dangerous competitor for traffic between Buffalo and Chicago, and intermediate points. In order to overcome this competition the Lake Shore people were compelled to, and did purchase, the Nickel Plate from Mr. Brice and his associates at such an advance over the cost of construction that the profits which accrued represented large fortunes. The consummation of this gigantic transaction placed Mr. Brice in the front rank of railroad operators. It dispelled the delusion, previously accepted as a fact, that only eastern men, with eastern capital, could successfully organize and operate large railroad systems.

The name of Ohio C. Barber is one that needs no introduction in these pages, since, for more than the lifetime of a generation, he has been identified with many of the most important industries of the west. Akron, Ohio, is his native place, and his natal day, the 20th of April, 1841. While not a college graduate, he is a well educated man, a worldwide traveler and a thorough student, though less of books than of men, of nations and their affairs, a close if reticent observer, to which faculty is largely due perhaps his success in life. To the public Mr. Barber is best known as president of the Diamond Match Company; but this is by no means the only or indeed the principal reason for according to him more than passing recognition. It is mainly through his efforts that the company supplies almost the entire home consumption and in part the European demand, driving out of the field, by perfected inventions and machinery, factories where, as in Italy, ten cents a day was more than an average wage. Few indeed are aware of the magnitude of the industries concentrated in this company, whose methods, both as to manufacture and distribution, have been brought under such economic conditions as to permit the use of matches for kindling-wood, without perceptibly increasing household expenditure. But our mention of its operations must be of the briefest. The consumption of matches in the United States is computed at five per day per capita of the population, or a total of about 140,000,000 a year, sufficient, if placed side by side, to compass the earth with a belt fifteen inches in width. Of these at least three-fourths are made by the Diamond Match Company, to say nothing of the foreign demand. Among the materials annually consumed are 50,000,000 square feet of pine, 10,000 tons of straw-board and paper for wrapping and boxing, 2,500 tons of brimstone and paraffin, and 4,000 tons of chemical compounds for the heads and for saturating the ends of the sticks. As delivered to the consumer, their value exceeds $10,000,000; yet, through the aid of automatic machinery and labor-saving appliances, almost as perfect as anything human can be, the cost of matches, since the organization of the company in 1881, has been reduced by 75 percent, and this with a large attendant increase in the company’s revenues, due to the enormous growth in consumption. Such are the estimates of Mr. Barber, whose statements, after some forty-five years' experience in the business, as the guiding spirit, almost from its inception and throughout its wondrous development, may be accepted as from one who speaks with authority. Of its many factories the largest, with a capacity of 1, 140,000 matches a day, is at Barberton, Ohio, the site of which, seven years ago, was a cluster of farms, and is now covered with a town of 45,000 people, most of them supported, directly or indirectly, by this, the largest establishment of its kind in the world. At Liverpool, England, is a factory second only in size to the one at Barberton, and in Germany, Switzerland, Chili, Peru, South Africa, and elsewhere, others have been or are being constructed all using the company’s patents, which are now of almost worldwide adoption. Before such results could

be achieved, several millions of dollars were expended on mills, lumber, and other articles, all produced on an enormous scale and by the most economic methods; for it was the first aim of the management to render the company self-supporting, and self-supplying. During the eighteen months ending with April, 1895, or example, there were cut at an expense of $600,000, nearly 200,000,000 feet of lumber, requiring the services of 6,000 men and 1,200 horses, all at one time in the woods. While as we have seen, the Diamond Match Company has largely concentrated the business, it is not as a monopoly, but, only in the sense that a group of mines, for instance, might be concentrated under a single management, with mutual advantage to all concerned. Instead of a monopoly, as has been often alleged, it is rather a cooperative company, in which every prominent member, and many who are not prominent, is an owner of the stock.

Those who are not possessed of means are aided to its ownership, thus enabling the directors to secure men of superior ability and character in every department and in every store and factory. In a word it is, as the president states, "a company largely owned by operatives, who carry on the business for their own benefit, the result being economies whereby the public is greatly benefited."

In connection with the manufacture of matches Mr. Barber's attention was directed to the production of boxes, and it was through his efforts that, in 1889, twenty-six large mills were consolidated into the greatest and best straw-board factory in the world. Here, with automatic processes, and with the aid of less than a hundred operatives, are made several million, straw-board or paper boxes a day. To fashion them by hand as was done a quarter of a century ago, and is still done at starvation wages in European cities, would require the services of two or three thousand workmen. Moreover, the boxes are lighter and stronger, while there has been a great saving in the materials used for pasting, labeling and other purposes. The company is still in existence, but not in such prosperous condition as when Mr. Barber was at its head.

In these undertakings it would appear that there was sufficient occupation to satisfy even a man so brimful of energy as Ohio C. Barber; but of many other enterprises he is and long has been the chief promoter. He is president of the largest sewer pipe company in existence, producing at the rate of 150 tons a day, and holds the same office in the Tube Company of Warren, Ohio, with a capital of $500,000 and a daily output of twenty car-loads of gas and water piping. Still another organization over which he presides is the Sterling Boiler company, whose water-tube boilers find a ready market, not only in the United States, but in Mexico, South America, Africa, and even in England. Marine boilers are also among its products, the Barberton branch having orders on hand for the supply of several battleships. But here we cannot further describe the many associations that owe to him their origin and prosperity.

Of the social life of Mr. Barber little need here be said; for he has ever been a man of affairs, trained to business from early boyhood, and with interests of such magnitude as to leave but scant leisure for the recreations that are to his taste. In 1866 he was married to Miss Sarah L. Brown, a most amiable and accomplished lady, whose decease occurred after some thirty years of happy wedded life. Of their two children the names are Anna L. and Charles Hiram. Akron is still his home, if it can be said that he has a home, for most of his time is spent in the east and in Europe, where matters of importance constantly demand his attention. Throughout the old and new world he is known, not only for his ability and his marvelous capacity for work, but for his sterling integrity, as one whose promise is more binding than the most stringent of contracts. He is a man of striking appearance, more than six

feet in height, and with regular clear-cut features; in manner he is extremely quiet, but combining, in large measure, the fortiter in re with the suaviter in modo. He is noted, moreover, for his charitable deeds, never made public but never withheld, where the cause is worthy. That he is also a public-spirited man is shown, among other instances, by his providing Akron, partly at his own expense, with the neatest and most sightly city hall in all the wide and wealthy state of Ohio.

Clark J. Whitney is one of the strong and able men of Detroit; honest and upright in every relation of life; a business man in high standing; a leader in the commercial world where the worth of his character commands a respect equal to that demanded by his persevering enterprise. As a merchant and a director of amusements he has well earned the reputation in which he is held, and no where is he held in greater respect than in the city where his daily life is spent. For over thirty-five years he has occupied an exalted position among the residents of Detroit and the west, having made a mark upon the formative period of Detroit that entitles him to a prominent place in the history of the city.

Section Ten

Chapter the Twenty-Eighth: New England States

Riches ben good to ‘em that han well ygotten ‘em, and that well can usen ‘em. If thou be right rich, thou shalt find a great number of fellows and friends; and if thy fortune change, that thou wax poor, farewell friendship and fellowship. Yet, they that ben bond and thrall of liniage shuln be made worthy and noble by riches. Sorrowful and m’shappy is the condition of a poor beggar, for if he ax not his meat he dieth of hunger, and if he ax he dieth for shame; and algates necessity constraineth him to ax. Therefore wol I show you how ye shulen behave you in gathering of your riches, and in what manner ye shulen usen ‘em. First, ye shulen geten ‘em withouten great desire, by good leisure, sokingly, and not over hazily, for a man that is too desiring to get riches abandoneth him first to theft and to all other evils. And, sir, ye shulen get riches by your wit and by your travail, unto your profit, and that withouten wrong or harm doing to any other person. In getten riches ye musten flee idleness; and afterward ye shulen usen the riches which ye han getten by your wit and by your travail in such manner than men hold you not too scarce, ne too sparing, ne fool-large, that is to say, over large a spender. The goods that thou hast ygetten, use 'em by measure, that is to sayen, spend measurably; yet ye shulen flee avarice, using your riches in such manner but that men sayen not that your riches ben yburied, that ye have 'em in your might and in your wielding. Afterward, in getting of your riches and in using of 'em, ye shulen alway have three things in your heart, that is to say our Lord God, conscience, and good name. For no riches ye shulen do nothing which may in any manner displease God that is your creator and maker. And yet I say furthermore, that ye shulen always do your business to get your riches so that ye get 'em with a good conscience. Afterward, in getting of your riches and in using of ‘em, ye must have great business that your good name be alway kept and conserved. He that trusteth him so muckle in his good conscience, that he despiseth or setteth at nought his good name or los, and recketh not though he kept not his good name, is but a cruel churl.

—Chaucer

When the son of Eric the Red entered Boston bay he saw several peninsulas jutting out from the mainland, on one of which were three hills, and on one three peaks, hence Tri-mountain, and later Tremont. There the town was built, and the top of one the hills, called Beacon, was taken off and thrown into a mill-pond, to the satisfaction of the people and the improvement of both hill and pond. As the Century came and went, the east-side flats of Boston neck were filled, likewise Back Bay, and Boston became one of the fairest cities on earth, all the towns around in due time becoming likewise Boston.

It was in 1630 that the place was settled by the Massachusetts Company under John Winthrop, but in due time contention arose, and the weaker ones were driven away, the expelled finding refuge, some in New Hampshire and Rhode Island, and some with the New Netherland people. This was in 1638, the same year that the public school at Cambridge, then Newtown, received the bequest from the estate of John Harvard, which was the foundation of Harvard College. Skipping along on the hilltops of history, we have the establishment of a mint in 1651; two large fires in 1676 and 1679; troubles with their rulers, Charles and James of England; serious concern about witches and Quakers in 1692 and afterward: another great fire in 1711, and ten years later the smallpox, with fierce opposition to the introduction of inoculation by Zabdiel Boylston, who was supported in his efforts by Cotton Mather. In 1747 press-gang riots; in 1755 an earthquake; in 1760 still another fire; in 1765-1768, stamp-act and other riots; in 1770 the so-called Boston massacre; in 1773 the tea-party episode; in 1775 the battle of Bunker hill; then war, and yet again in 1812; abolitionism in 1831, when William Lloyd Garrison issued The Liberator, then and for a dozen years thereafter pro-slavery mobs; in 1840 a line of steamships to Europe; in 1844 water from Cochituate lake; cholera in 1849; civil war matters in 1861 and after; and a greater fire than any in 1872.

But out of this, and out of all fires, moral physical political and religious. Boston emerged sanctified to assume yet higher beauties and nobler utilities. A volume would be indeed too small properly to describe what has here been done,—the institutions of learning established, the purification of political and religious liberty, and the evolution of the aesthetic in matters physical moral and mental. Boston has always been a wealthy city, and her people intellectual; why should not culture result? In 1800 the assessed valuation of property, real and personal, was $15,000,000; in 1880, $639,000,000. Population in 1790, 18,000; in 1900,—how much over half a million? Banking began in Boston with the establishment of a branch of the Philadelphia Bank of North America in 1782; now some sixty banks aggregate a capital of nearly as many millions. The Boston parks and boulevards are fast becoming exceedingly beautiful. Among public buildings may be mentioned that 'cradle of liberty,' Faneuil Hall erected, and given to the town for a market, in 1742, by Peter Faneuil; Old South Church, erected in 1730; the old state house, built in 1748. The present state house, on Beacon Hill, stands on land purchased of the Hancock family. Here, within and without, are statues and busts of Governor Andrew and Samuel Adams, of Washington, Webster, and Lincoln. Other objects of interest are the Masonic temple. Natural History building; Horticultural and Odd Fellows halls; Institute of Technology Public, library, Museum of Fine Arts, and Boston university, not to mention a score and more of beautiful churches.Banished from the Massachusetts colony, Roger Williams and five others proceeded to Narragansett bay, and found on Rhode Island a spot suitable for their purpose, which they called Providence, "in gratitude to God for his providence to them in their distress," now a city second Here is in New England in wealth and population only to Boston. Brown University, founded at Warren in 1764 as Rhode Island College; also historical, scientific, and literary societies and

libraries. Commerce, which here once held sway, has given place to manufactures, conspicuous among which are cotton and woolen fabrics, engine locomotive and other iron works, gold, silver, sewing machines, bicycles, rifles, and other industries. The Corliss engine, here developed by George H. Corliss became world renowned.

New Bedford is a city of much wealth and liberality. The Social library, founded in 1803, received a bequest of $100,000 in 1863 from Miss S. A. Howland, who also gave a like amount for city waterworks. Nantucket was at one time the largest whaling station in the world, having in 1775 no less than 150 vessels engaged in the trade. But about 1800 came a decline, and New Bedford became first in that industry, having 410 vessels in 1854. But this hazardous and exciting industry was fated to give way before the large production of petroleum, since which New Bedford has built up manufactories of cotton, wool, silver-plate, iron, and copper. Salem did a large business with the East Indies a hundred years ago, but of late years its attention has been turned to manufactures. Many are the historical and religious associations which cluster about the place, giving rise to several important institutions, prominent among which stand the Peabody academy, founded in 1867, which purchased and refitted the old East India marine hall, built in 1824 by the East India Marine society and where still remain the East India Museum and Essex Institute collections. At Danvers, two miles away, is the Peabody Institute. In Essex street, Salem, is Plummer hall, built with funds given by Miss Plummer to the Salem Athenaeum, where are the libraries of Athenaeum, Essex institute, and South Essex Medical society, while nearby is the relic of the oldest church building in New England, erected for Roger Williams in born 1634. George Peabody, to poverty at Danvers in 1795, gave to his parents all he earned, and at their death was left without a dollar. Worked in a store after that at Newburyport, and then in another at Georgetown DC, was in business for himself at 19, first in America and then in London, where he finally became a banker, made $9,000,000, and left it all to charity, partly in London and partly in the United States. His name is synonymous with all that is noble just and generous. Among the original Salem merchants, prior to 1670, was William Hollingworth. His daughter married Philip English whose name was given to a street, and in whose great house was found, when demolished in 1833, a secret room into which to retire when accused of witchcraft, for even the rich and powerful were not always safe from accusation.

Immediately on landing, the Pilgrim Fathers had the question to face. What shall civilization do with savagism when the native is not wanted to till the land, as in the south, nor to hunt game for peltries as in the north; when soul-saving is an incident rather than an excuse; when, in short, the aboriginal inhabitants of the coveted lands are wholly and altogether in the way? We will try to be friendly, but we must protect ourselves from insult and injury. We will purchase what land we require at a cent an acre, and the red men must crowd up and move back. This is enough to pay when the price is accompanied by our superior ethics, as set forth in our blue-laws with colored witch burning and Quaker hanging illustrations. The promises of Massasoit, sachem of the Wampanoags in Massachusetts, made in 1621 to Governor Carver, three months after the founding of Plymouth, were faithfully kept to the day of his death, but during the reign of his son King Philip, the Pennacooks of New Hampshire, with other New England natives, unable to withstand the continued restrictions imposed upon them, broke out in 1675 in open war, which resulted in the loss of 600 lives of the colonists, 13 towns, and $1,000,000 worth of property. William Pynchon, who came from Roxbury in 1636 to found Springfield, limiting the population to 40 or 50 families, was obliged to flee that early New England boomerang, religious persecution, after which the savages came and burned the place.

Two hundred years later scores of furnaces were roaring night and day in the manufacture of fire arms for use in the civil war.

Boston has been considered a wealthy and prosperous place, for its size certainly one of the wealthiest in the world. It was settled in 1630 by wealthy men, by men many of whom brought money from England. Not many cities in America were so begun. New York had some ancient moneyed men, and Philadelphia; but the western cities were almost all of them made by men who had first to make themselves. A century ago Boston was more wealthy as compared with other American cities than now. In 1650, with a population of some 7,000, there were ten men, perhaps, worth $20,000 or $30,000; in 1750 there were 16,000 inhabitants, with twenty men worth from $40,000 to $60,000. By 1850 there had come a change. Early in the century Hamilton's funding system raised to opulence certain persons who speculated in continental securities, buying at next to nothing and selling at par. Here was created capital for further speculation and enterprise. The shipping interest assumed larger proportions, and there were men whose fortunes reached the then enormous sum of one million of dollars. The merchants and capitalists of Boston became solid, and solid have been the men of Boston ever since, railways rolling up their fortunes as shipping declined.

The father of Samuel Adams was once quite wealthy, but lost his fortune through banking speculation, the son descending to 'Samuel the publican.' The father of John Adams, who was a farmer in moderate circumstances, offered his son his choice of work at home and a share of the estate, or a college education and self-support thereafter. John chose the latter, and became first teacher, then lawyer, and finally president of the United States. From early manhood John Quincy Adams showed marked ability as lawyer and diplomat, and the family estate at Quincy continuing to increase, he was at length allowed to retire from the highest political honors to a private competency. Charles Francis Adams was student in the office of Daniel Webster, but preferred literature to law. His son, Charles Francis Adams Jr., was for a time president of the Union Pacific railway John Hancock, after graduating at Harvard in 1754, entered a mercantile house, and on the death of an uncle succeeded to a large fortune and extensive business. Amos Lawrence from boy in a country store became a rich Boston merchant with his brother Abbott for a partner. The two were model merchants, broad-minded, able, patriotic, and philanthropic. Their business was the sale of cotton and woolen goods, and agents for Lowell manufacturers. They became very wealthy and gave largely to charity. E. B. Bigelow, inventor manufacturer and merchant, exercised a marked influence on New England industries about the middle of the century. He greatly improved the power-loom, made wire cloth and carpets, wrote books, organized manufacturing companies like the Lancaster mills for making ginghams, and others, was president of the National Association of Wool Manufacturers, one of the incorporators of the Massachusetts Institute of Technology, and made much money.

Of all gifts to schools or colleges, that of John Harvard was according to the amount the most prolific of results, the donation being some $2,000 and 300 volumes of not very valuable books. It was the only college in America for fifty years, and now it stands at the head of them all.

Elihu Yale's gift to the school of his native town was about the same,— £500 in books and money. As the books of those days were chiefly sectarian and fanatical, they can for the most part be left out of valuations in college foundations. Not far from $100,000,000 have been given to educational institutions in the United States, and more than half of it within the last two decades. Up to the time of independence, William and Mary, an English rather than an American college, was the wealthiest

in the colonies. Moor's Indian Charity School, the name by which Dartmouth was first known, received $50,000 from England. When in 1847 Abbott Lawrence gave $50,000 to Harvard, it was the largest amount ever bestowed by a single individual on any institution in the United States. Now, Seth Low and Rockefeller pass in their millions to Columbia and Chicago universities, in a way which would have astonished the solid men of Boston in the time of the Lawrences. George Peabody gave $1,000,000, Johns Hopkins $3,000,000, Stephen Girard $7,500,000. Harvard was a clergyman, and died at Charlestown, Massachusetts, in 1638. Yale was born at New Haven in 1648, but ten years afterward he was carried by his parents to England, in due time to acquire wealth in India, where he was governor of the East India company. Yale College dates from 1701. The present income of Yale is $800,000 per year. Originally located at Saybrook, Connecticut, it was removed to New Haven in 1716. Large gifts were also made by Asa Parker, founder of Lehigh university; Ario Pardee, of Lafayette college; Joseph C. Green, Princeton; Joseph E. Sheffield, Sheffield institute; Samuel Williston, of Amherst; also Ezra Cornell, Matthew Vassar, Henry F. Durant, Henry W. Sage, and W. H. Vanderbilt; Henry W. Towne, of Philadelphia; Amasa Stone and H. W. Case of Cleveland; George I. Seney of New York, and Nathaniel Thayer, of Boston. Otis, of Connecticut, gave $1,000,000 to heathen missionary work. Slater, of Connecticut, gave $1,000,000 to educate the colored people of the south. Rich gave $2,000,000 to Boston University for young men and women. Neither the great wealth expected, nor the millennium of morals religion intelligence and advancement aimed at has attended, as a rule, community of labor and property. The family of Shakers at Canterbury New Hampshire, consisting of 100 persons, constitute the town, with its cooking-house, school, workshops, library, printing-office, barn, and dwellings.

First of scientific institutions in New England is the American Academy of Arts and Sciences, begun in 1780 in Boston, having a good library but no scientific material. In Boston, likewise, is the Society of Natural History, and in New Haven the Connecticut Academy of Arts and Sciences, organized in 1799. In Salem is the Peabody Academy of Sciences elsewhere mentioned, organized in 1867, and having an endowment by George Peabody of $140,000. Among other New England scientific societies may be mentioned the Society of Natural History of Portland. Maine, incorporated in 1850, the museum at Amherst, and the Essex institute, later merged into the Essex County Natural History Society of Salem, incorporated in 1833. Both Harvard and Yale universities have scientific collections, the former a museum of comparative zoology and herbarium, the latter a Peabody museum and Marsh collection of vertebrate fossils. Amherst College, like many others, had its origin in a religious revival. It was at one time not an infrequent occurrence for a rich man to found an observatory or give a great telescope to a college. Of these Alvin Clark and his sons, of Boston, have made several, among the largest being those for the Lick observatory, 36-inch aperture; L. J. McCormick for University of Michigan, 26-inch; Naval observatory, Washington, D C, 26-inch; Princeton college, 23-inch; and Chicago observatory, 18 ½ inch.

Charles Tufts gave 100 acres of land to the college in Medford which bears his name, and later money was received through Silvanus Packard, William J. Warren, Oliver Dean, and others, aggregating $1,000,000. Wellesley college was founded by Henry F. Durant, who gave to it 300 acres of land and $1,000,000, M. H. Simpson. Valeria G. Stone, and George Smith have also given to the college. Durant, whose name originally was Smith, was a boy in Benjamin F. Butler's law office at Lowell. Changing his name he established himself in Boston, took his fees in some large rubber suits in stock, built railroads, and became rich.

New England has large values invested in banking, insurance, railways, and manufactures. As a whole the soil is not very productive, yet wealth abounds, and the land is full of happy homes. There are spots however like the Connecticut valley where good crops are raised and farming is profitable. Indian corn, buckwheat, oats, and tobacco are among the leading products. In Litchfield County are a score or so of iron foundries, with an invested capital of some $3,000,000. Connecticut leads the world in the manufacture of firearms and ammunition, though Massachusetts is not far behind. It may be for all we know that next to industries sustaining life, industries destructive to life are most beneficial to mankind; for were there no more war and no more death-dealing implements, what would be done with the surplus population? However this question be answered, New Haven is happy in having, besides Yale college, some 600 manufacturing establishments, chief among which are guns, hardware, clocks, carriages, and rubber goods. Wealthy London merchants settled here in 1638, and the place has been wealthy ever since. The Dutch built a fort where Hartford is in 1633, and it is now the center of large wealth and social culture. Formerly it shared the seat of government with New Haven, but in 1873 became sole state capital. Leaf tobacco, firearms, bicycles, and insurance are among its leading interests; there are many state, benevolent, and literary institutions. Connecticut also manufactures cotton, silk, and woolen goods, and has large fishing interests, particularly oysters at New Haven. Charles Goodyear, of New Haven, while struggling for eleven years to make India rubber of practical use, and laying the foundation of a great fortune, was once imprisoned for debt; once pawned his clothes to buy food, his children meanwhile gathering sticks for fire to melt the rubber. The spindle city, as Lowell is sometimes called, is great for its cotton manufactures, the water-power of Pawtucket falls being supplemented by steam power. There are also machine-shops and other factories here, as leather, chemicals, woodwork, and cartridges. Concord, the capital of New Hampshire, has a fine park, water and gas works, with statehouse, city hall, state prison, and insane asylum. Portland harbor is seldom closed by ice and so affords fine winter anchor age for the ocean vessels plying between Canada and Europe. The dry-dock is one of the largest in the United States. Portland exports, besides provisions and produce, lumber, copper ore, and cattle.

Prominent as merchants was the Derby family of Salem. Elias Hasket Derby. 1739-1799, son of Richard, and descendant of the Quaker immigrant Roger, losing his ships in the West India trade, in the war of independence, he and his neighbors fitted and sent out 158 privateers, mounting 2,000 cannon, and captured 445 British vessels. He built a superior kind of craft specially for the purpose, having speed; he advanced supplies to the government and helped in forming a navy; did much to restore commerce after the war; and was first to send a vessel to China, whence in 1790 he received 700,000 pounds of tea. Before he died he had 45 ships engaged in the East India trade. Rather than bring slaves from Africa, though the law allowed it, his ships having no other cargo would return in ballast. E. H. Derby, his son, continued the business, setting up the first broad-cloth loom, and bringing merino sheep from Spain. His son, grandson of the first Elias, was a lawyer and author, and assisted in the construction of iron-clad vessels during the civil war. A more distant member of the family was George H. Derby, soldier and humorist, author of Phoenixiana.

The Beecher family were truly great, with the best kind of greatness, the greatness of intellect and right living. No one knows what views Henry Ward Beecher really entertained regarding life, death, and eternity, but he talked well about them, and what he thought does not affect the facts. But beginning with Lyman Beecher, his Connecticut theology and school teaching and eighty-eight years of life, and coming to the son, the most powerful of pulpit orators, and his daughters, Catherine E.

Beecher and Harriet E. Beecher-Stowe, whose Uncle Tom's Cabin outsold any work ever written except bibles and prayer books, mounting into the millions, not to mention other descendants of less note, and it was indeed a remarkable family. The Dana name is prominent in Massachusetts and elsewhere. Richard Dana, statesman and jurist, settled at Cambridge in 1640. Fourth in descent from him was still Judge Richard Dana, whose son, Francis Dana, chief justice, was born in 1743. R. H. Dana the elder, was a poet, born at Cambridge in 1787, and father of R. H. Dana Jr., also of Cambridge, a lawyer, and author of Two Year's Before the Mast. Of other families were James D. Dana, geologist, of Yale college, and Charles A. Dana, editor of the New York Sun. The Ames family is one of the most prominent and wealthy in Massachusetts. Oliver Ames was born at Easton in 1804. His sons, Oakes and F. L. Ames made shovels, and made them well, as have most of the family, either by hand or by machinery. Oakes Ames was one of the builders of the Union Pacific railway. He died in 1882, leaving his large manufacturing and other interests to his sons Oakes A. Oliver, and Frank M. Ames. Oliver Ames 2nd, born in 1831, spent some time in the shovel works of Oliver Ames and Sons, and afterward served seven years as lieutenant-governor and governor of the commonwealth. Frank M. Ames, two years younger than his brother Oliver, is principal owner of the Kinsley Iron and Machine Works at Canton and Lamson Consolidated Store Service company, besides having large railroad interests, and a plantation of 12,000 acres on the Mississippi river opposite New Orleans. He is also prominent in political and military affairs.

Alexander Agassiz, son of Louis Agassiz, the ichthyologist, after graduating at Harvard turned his attention first to coal mining in Pennsylvania and then to copper mining at Lake Superior, at which latter occupation he became quite wealthy, and gave it is said, some $230,000 to the Harvard museum. The Perrys of Newport are among the honored names of America.

Christopher R. Perry and five sons all served in the in United States navy, the father the revolutionary war. O. H. Perry in the war of 1812 on Lake Erie, and Matthew C. Perry in the Mexican war. Wendell Phillips was one of the greatest men of his day, great like Lincoln and Washington, like Juarez and Bolivar. He who will stand like a rock for humanity and principle, against the selfish interests and fanaticism of the people, against the howling mob, spending life fortune and the highest talents in the defense of the right, with no prospect of reward, but only because it is the right commands our highest admiration. John Phillips, father of Wendell was the first, mayor of Boston; and when the son saw William Lloyd Garrison dragged through the streets at the end of a rope for daring to express anti-slavery views, Wendell Phillips, the orator and philanthropist, was won to that cause forever.

Large fortunes have been made in inventions in sewing-machines. Among modern efforts those of Elias Howe in 1846 were among the first, the inventors following being John Bradshaw 1848, A. B. Wilson 1850, these of Massachusetts; and later I. M. Singer, W. O. Grover, Gibbs, and several others. Some of the inventors made little or nothing, others secured fortunes of one or two millions. Wm. E. Baker, of Grover and Baker, was a shrewd active business man who joined fortunes with Grover, an inventor. Mr. Baker's country seat near Boston was called Ridge Hill Farms, and the hospitality and entertainments which ruled there took the form somewhat of public benefactions. This same Elias Howe was a lame boy of Spencer, Massachusetts, born into poverty and toil, his father a miller; he worked for a small wage at various occupations until past twenty-one, and married; invented a double-pointed needle having the eye in the middle; but there were many years of penury and privation before the sewing-machine came into use and Howe found himself with an income of two or three hundred thousand dollars a year.

For so great an invention the returns to Charles Goodyear from his vulcanized India-rubber were poor indeed—only empty fame. Thomas Blanchard, of Suttin, finding slow and monotonous the task at which his father set him of heading tacks singly in a vise, set working his brain and invented, and in 1817 patented a machine for cutting and heading tacks, which patent he sold for $5,000. This was followed by twenty other inventions and patents, among which were several for lathes for turning gun stocks and barrels, light-draught steamboat cloth shearing, and a machine for bending timber. There are single factories in the United States which make and ship as many clocks every week as any factory in Europe makes in a year, that is to say 10,000. Nearly all of these great factories are in Connecticut; there is one in Boston and one in Brooklyn, New York.

Among the great works of men in America are tunnels which pierce mountains and ferret under the beds of navigable streams for mining purposes. Among these are the Hoosac tunnel through the Green mountains of Massachusetts, first conceived for the use of a canal to connect Boston with the Hudson river, but made in fact the cost for the railway, the cost to the state, with interest, amounting to about $20,000,000, In Washington, a tunnel was opened through the Cascade mountains in 1888; in California there is the Big Bend tunnel in Butte county, and in Nevada, the Sutro tunnel at Virginia city. Under the Chicago River have been run several tunnels; and under the St. Clair, at Port Huron; and either executed or projected, under the river Niagara, and the Harlem. East and North rivers New York City and numbers of others.

Harvey D. Parker, of the Parker house was first waiter in a small Court street restaurant, then restaurant keeper, then hotel keeper and millionaire. Isaac Rich, a Cape Cod boy, peddled his fish and oysters about the streets of Boston for many years, until one day Boyden, of the Tremont house, loaned him $600 to buy a cargo of salmon. In this transaction the foundation of his fortune was laid. He gave during his life half a million to charity, and left a million and a half to be distributed after his death. Samuel Colt saw somewhere an old weapon which gave him the idea of a revolver, and he set up a factory just at the time when California gold-seekers were taken with the fancy that unless they carried a gun their life was in danger; the result was a million or two for Colt. Joshua Sears was a grocer and trader on Long Wharf, Boston, and amassed a fortune estimated at eleven millions before the great fire. The estate was left to an infant son, under the management of Alpheus Hardy at a salary of $25,000 a year with commissions on income, which revenue he received for 21 years. Alvin Adams came from Vermont to Boston a poor boy, and was long without money and without friends. Finally he was able to buy a season ticket between New York and Boston, and by long and arduous personal application he succeeded in founding on a firm basis the Adams Express company. Alexander G. Bell, inventor of the Bell telephone, was born in Scotland, went to Canada, and thence to Philadelphia, where he first exhibited the invention which made him wealthy in 1876.

A. G. Hazard, who became wealthy in the manufacture of gunpowder, belonged to Rhode Island, and was a relative of D. H. Parry, but his permanent works were at Hazardville, Connecticut. David Hoadley, prominent as president of the Panama railway, was once a druggist in New Haven. This famous railroad, 47 miles in length, costing so many lives and so much money, paid for itself in ten years; many thousand passengers at $25 each and $800,000,000 in specie were conveyed across the Isthmus prior to 1870. James E. English, of Connecticut, worked his way up from humble beginnings to a proud position of wealth and benevolence. William B. Bement was another successful Connecticut man, who later removed to Philadelphia. Charles Morgan, native of New England, and founder of the Morgan Iron Works and the Morgan line of steamers, came of Welsh stock, being of the seventh

generation in descent from James Morgan, who came from Wales to Boston in 1636. William M. Evarts was born in Boston, though he practiced law in New York. George F. Hoar, United States senator from Massachusetts, must ever be regarded as one of the foremost men this nation has ever produced. Levi P. Morton, no less prominent in politics than in Wall Street, genius and wealth here uniting, was born in Vermont, and for a time was a merchant in Boston. Benjamin J. Berry took an active interest in the incorporation of the Cape Cod ship canal, the cost of which was estimated at some $8,000,000. J. B. Hoyt of Stamford, Connecticut, left an estate of $6,000,000. E. D. Boylston, of Amherst, after a life of benevolence died leaving $1,000,000. These, and others to be mentioned, are among New England's greatest and most successful men, for what is greatness but success; greatness for good or evil, success for weal or woe? And how men achieve success and become great, who can tell? Surely not the great ones themselves, who least of all comprehend by what many and devious ways they have reached the goal. Ask them, and one will say perseverance and an iron will, which his enemy will call perhaps stupidity and obduracy. Another will speak of application, economy, honesty, or other noble quality, when all the while, unknown to himself be has been building his fortune by meanness and luck. Thinking well of ourselves, naturally we apply to ourselves the best sounding terms.

Miscellany

Among those prominent in the history of New England, and born there, are:—Maine, Jacob Barker, Swan Island, 1779-1871, economist and ship owner; James Brooks, Portland, 1810-1873, journalist; George B. Cheever, Hallowell, 1807, clergyman and author; George S. Hillard, Mechine, 1808, author; Rufus King, Scarborough, 1755-1827, statesman; Henry W. Longfellow, Portland, 1807, poet; Edward Preble, Falmouth Neck, 1761-1807, naval officer; N. P. Willis, Portland, 1806-1867, author. New Hampshire, Nathan Appleton, New Ipswich, 1799-1861, Boston merchant and cotton manufacturer; Samuel Appleton, New Ipswich, 1766- 1853, Boston merchant and philanthropist, gave $1,000,000 to education; Edmund M. Blunt, Portsmouth, 1770-1862, hydrographer; Benjamin F. Butler, Deerfield, 1818, general; Lewis P Cass, Exeter, 1782-1866, statesman and general; Salmon P. Chase, Cornish, 1808-1873, statesman; James Freeman Clarke, Hanover, 1810, clergyman; Charles A. Dana, Hinsdale, 1819-1897, journalist; Henry Dearborn, Hampton, 1751-1829, general; John A. Dix, Boscawen, 1798, politician and general; Samuel G. Drake, Pittsfield, 1798, author; William P. Fessenden, Boscawen, 1800-1869, statesman; John P. Hale, Rochester, 1806-1873, statesman; Charles Francis Hall, Rochester, 1821-1871, arctic explorer; Franklin Pierce, Hillsborough, 1804-1869, president of the United States; Daniel Webster, Salisbury, 1782-1852, statesman; the Wentworths, John and Benning, 1671, etc, statesmen and patriots; Joseph E. Worcester, Bedford, 1784-1865, lexicographer; Noah Worcester, Hollis, 1758-1837, clergyman, author, and fifer at Bunker Hill; T. B. Aldrich, Portsmouth, 1837, poet; Horace Greeley, Amherst, 1811, journalist, founder of the New York Tribune. Vermont, Stephen A. Douglas, Brandon, 1813-1861, statesman; Rufus W. Griswold, Benson, 1815-1857, author; Augustus A. Hayes, Windsor, 1806, chemist; Ethan Allen Hitchcock, Vergennes, 1798- 1870, author; Hiram Powers, Woodstock, 1805-1873, sculptor; Asahel C. Kendrick, Poultney, 1809, author; John G. Saxe, Highgate, 1816, poet; John Todd, Rutland, 1800-1873, clergyman and author; Horace Wells, Hartford, 1815-1848, dentist, discoverer of anaesthesis; Brigham Young, Whittingham, 1801, Mormon leader; Joseph Smith, Sharon, 1805-1844, Mormon prophet; Chester A. Arthur, Fairfield, 1830-1886, president of the United States; George F. Edmunds, Richmond, 1828, lawyer and senator. Massachusetts, Samuel Abbott, Andover, 1732-1812, Boston merchant, founder of Andover Theological Seminary; Charles Francis Adams, Boston, 1807, statesman; John Adams, Braintree, 1735-1826, president of the United States; John Quincy Adams, Braintree, 1767-1848, president of the United States; Samuel Adams, Boston, 1722-1803, statesman; Daniel Appleton, Haverhill, 1785-1849, New York publisher; George Bancroft, Worcester, 1800-1891, historian; E. B. Bigelow, West Boylston, 1814-1879, inventor of power loom; Jacob Bigelow, Sudbury, 1787, physician and writer; Amos Binney, Boston, 1803-1847, savant; George S. Boutwell, Brookline, 1818, statesman; Nathaniel Bowditch, Salem, 1773-1838; James Bowdoin, Boston, 1727-1790, governor, gave name to Bowdoin College; Zabdiel Boylston, Brookline, 1680-1766,physician; William Cullen Bryant, Cummington, 1794, poet; Rufus Choate, Essex, 1799-1859, lawyer; Jos. G. Cogswell, Ipswich, 1786-1871, scholar; Caleb Cushing, Salisbury, 1800, jurist; Francis Dana, Charlestown, 1743-1811, jurist; Timothy Dwight, Northampton, 1752-1817, clergyman and scholar; Ralph Waldo Emerson, Boston, 1803, essayist; William M. Evarts, Boston, 1818, lawyer; Edward Everett Dorchester, 1794-1865, statesman and orator; Eli Whitney Westborough, 1765-1825, inventor of the cotton-gin; Thomas Blanchard, Sutton, 1788-1864, inventor; John Lowell, jurist, 1743, Francis Cabot Lowell, merchant, 1775, Newburyport; John Lowell, Boston, 1799-1836, founder of Lowell institute; James Russell Lowell, Cambridge, 1819, poet; Horace Mann, Franklin, 1796-1859, educationist; William L. Marcy, Stockbridge, 1786-1857,

statesman; William T. G. Morton, Charlton, 1819-1868, dentist; Samuel F. B. Morse, Charlestown, 1791-1872, telegraph inventor; George Peabody Danvers, 1795-1869, merchant; Theophilus Parsons, father and son jurists; Wendell Phillips, Boston, 1811, orator; Timothy Pickering, Salem, 1745-1829, statesman; Theodore Parker, Lexington, 1810-1860, orator and abolitionist; Francis Parkman, Boston, 1823, author; Edgar Allen Poe, Boston, 1809-1849, poet; David Porter, Boston, 1780-1843, naval officer; William H. Prescott, Salem, 1796-1859, historian; Israel Putnam, Salem, 1718-1890, general; Josiah Quincy, Boston, 1772-1864, statesman; R. H. Stoddard, Hingham, 1825, author; Joseph Story, Marblehead, 1799-1845, jurist; Edward Bellamy, Chicopee Falls, 1850, author; Cyrus W. Field, Stockbridge, merchant; Austin Flint, Petersham, 1812, physician; Benja min Franklin, Boston, 1706-1790, philosopher and statesman; William Lloyd Garrison, Newburyport, 1804, abolitionist; Edward Everett Hale, Boston, 1822, clergyman and author; John Hancock, Quincy, 1737-1793, statesman; Nathaniel Hawthorne, Salem, 1804-1864, author; Thomas Wentworth Higginson, Cambridge, 1823, author; Edward Hitchcock, Deerfield, 1793-1864, geologist; Oliver Wendell Holmes, Cambridge, 1809, author; Joseph Hooker, Hadley, 1815, general; Harriet G. Hosmer, Watertown, 1830, sculptor; Elias Howe Spencer, 1819-1867, sewing-machine inventor; Thomas Hutchinson, Boston, 1711-1780, governor; Charles T. Jackson, Plymouth, 1805, physicist; Amos and Abbott Lawrence, Groton, 1786, etc, merchants and philanthropists; Benjamin Lincoln, general, Levi Lincoln, statesman, Hingham, 1733, etc; Benjamin Wade, Springfield, 1800-1878, statesman; Charles Sumner, Boston, 1811-1874, statesman; George Ticknor, Boston, 1791-1871, author; Charles Dudley Warner, Plainfield, 1829, author; James Warren, Plymouth, Joseph Warren, Roxbury, 1726 etc, patriots; Elkanah Watson, Plymouth, 1758-1842, merchant; E. P. Whipple, Gloucester, 1819, author and Haverhill, lecturer; John G. Whittier, 1807, poet; John and Samuel Phillips, Andover, 1719 etc, founded Exeter and Andover academies; Aphraim Williams, Newton, 1715-1755, soldier and founder of Williams college; Winthrop, John and Robert C., Boston, 1714 etc, descendants of John Winthrop; Silas Wright, Amherst, 1795-1847, statesman, abolitionist, and governor of New York. Rhode Island, William E. Channing, Newport, 1780-1842, clergyman and author; George W. Curtis, Providence, 1824, author; Nathaniel Greene, Potowhommet, 1742-1786, general; O. H. Perry, Newport, 1785-1819, commodore. Connecticut, Ethan Allen, Litchfield, 1739-1789, general; Benedict Arnold, Norwich, 1740-1801, general and traitor; Amos B. Alcott, Waterbury, 1799-1888, philosopher; Lyman Beecher, New Haven, 1775-1863, clergyman; Henry Ward Beecher, Litchfield, 1813-1887, pulpit orator; Harriet E . Beecher-Stowe, Litchfield, 1812, author; John Brown, Torrington, 1800-1859, abolitionist; Elihu Burritt, New Britain, 1810 scholar; Isaac Chauncey, Black Rock, 1772-1840, naval officer; Nathaniel Chipman, Salisbury, 1752-1843, jurist; Manesseh Cutler, Killingly, 1742-1823, scientist: Jonathan Edwards, East Windsor, 1703-1758, clergyman and metaphysician, David Dudley Field, Haddam, 1805, and Stephen J. Field, 1816, jurists; John Fitch, Windsor, 1743-1798, inventor and pioneer in steam navigation; Nathan Hale, Coventry, 1755-1776, soldier; Fitz-Greene Halleck, Guilford, 1790-1867, poet; Isaac Hull, Derby, 1775-1873, naval officer; Thos. S. Hunt, Norwich, 1826, chemist and mineralogist; Charles Morris, 1784-1856, naval officer; John Ledyard, Groton, 1751-1787, traveler; Frederick Law Olmsted, Hartford 1822, landscape gardener; Peter B. Porter, Salisbury, 1773-1844, general; Theodore Sedgwick, statesman, Hartford, 1746-1818, and John Sedgwick, general, Cornwall, 1813-1864; Jonathan Trumbull, Lebanon, 1710-1785, revolutionist, and whence “Brother Jonathan;" Noah Webster Hartford, 1758-1843, lexicographer; Eleazar Wheelock, Windham, 1711-1779, clergyman and founder of Dartmouth college; Elihu Yale, New Haven, 1648-1721, founder of Yale college; P. T. Barnum, Bethel, 1810-1891, showman; Charles Goodyear, New Haven 1800-1860, inventor of vulcanized India-rubber; Morrison R. Waite, Lyme, 1816-1888, chief justice.

I give herewith some of the wealthy men of Boston of a half century or more ago, as, John Quincy Adams, whose fortune was rated at $400,000; Benjamin Adams, $200,000; Cyrus Alger, iron founder and land owner, $200,000; Charles Amory, $200,000: James Amory, $200,000; Eben T. Andrews, merchant, $350,000; Samuel Appleton, dry goods, $1,000,000; Nathan and William Appleton, each $1,000,000; Samuel T. Armstrong, seller of Scott's Bible, $200,000; Benjamin Atkins, crockery, $150,000; Samuel Austin Jr., $250,000; James T. Austin, lawyer; Eliphalet Baker, dry goods, $150,000; John Ballard, carpets, $200,000; Joseph Ballard, $150,000; John D. Bates, $150,000; John Belknap, merchant, $200,000; Amos Binney, grocer, $300,000; John Borland, $200,000; Ezra A. Bourne, $150,000; Abner H. Bowman, distiller, $150,000; Josiah Bradlee, $300,000; John W. Bradlee, wine, $300,000; Martin Brimmer, $250,000; Peter C. Brooks, insurance and real estate, then the wealthiest man in New England. $4,000,000; Edward Brooks son of above, and before his father's death, $200,000; Peter C. Brooks Jr., merchant, $200,000; John Bryant, firm Bryant and Sturgis, Northwest Coast shipping, $1,000,000; John Bryant Jr., $150,000; Benjamin Burgen, $150,000; George Burroughs, bank cashier, $150,000; Samuel Cabot, merchant, $300,000; Andrew Carney, clothing, $200,000; Ebenezer Chadwick, $150,000; Jonas Chickering, pianos, $200,000; Charles R. and John Codinan, merchants, each $300,000; Henry Codman, $500,000; Joseph Coolidge, goldsmith, $200,000; Thomas Cordis, $150,000; Benjamin W. Crowninshield, privateering war 1812, $500,000; Edward Cruft, $250,000; John P. Cushing, China trade, $2,000,000; Richard C. Derby, $150,000; John Dorr, merchant, $150,000; Edmund Dwight, $600,000; David Eckley, $250,000; Samuel A. Eliot, $300,000; Samuel Fales, $200,000; Nathaniel Faxon, boots and shoes, $150,000; William Foster $200,000; Ebenezer Francis, merchant, $700,000; Robert, John M., and Robert B. Forbes, China trade, each $200,000; John L. Gardner, married a daughter of Joseph Peabody, $500,000; Henry Gardner, $250,000; Henry Gassett, dry goods, $200,000; Addison Gilmore, from handcart to railroad, $150,000; Nathaniel Goddard, merchant, $300,000; Moses Grant, paper, $150,000; John C., Francis C., and Horace Gray, iron works, $300,000 or $400,000; Copeley, and other Greenes, heirs of Gardner Greene, cotton raiser in Demarara, $3,000,000; John Hancock, inherited from his uncle John Hancock, president of congress and governor of Massachusetts, $300,000; Franklin Haven, bank cashier, $150,000; David Henshaw, druggist, $200,000; Fitzhenry Homer, $150,000; George Howe, merchant, $200,000; Jabez C. Howe, dry goods, $150,000; Benjamin Humphrey, grocer, $250,000; Henderson Inches, merchant, $200,000; Charles Jackson, judge, $150,000; James Johnson, merchant, $300,000; Thomas Lamb, insurance, $150,000; Abbott Lawrence, dry goods, $2,000,000; Amos and William Lawrence, each $1,000,000; Giles Lodge, merchant, $200,000; Elijah Loring, wharfinger, $300,000; Benjamin Loring, stationer, $200,000; Joseph Lovering, $200,000; Charles Lowell, clergyman, $150,000; John A. Lowell. $300,000; George W. Lyman, $300,000; Theodore Lyman, $150,000; William P. Mason, lawyer, $150,000; Samuel May, metals, $500,000; George May, $300,000; David C. Moseley, saddler, $150,000; George Odin, hardware, $200,000; Harrison May Otis, lawyer, $800,000; Peter, James, and Charles Parker, heirs of John Parker, each $700,000; Daniel P. Parker, $200,000; Francis Parkman, clergyman, $200,000; William Parsons, banker, $150,000; Thomas Perkins Jr., China trade, $300,000; Jonathan Phillips, $800,000; Edward B. Phillips, $300,000; William Pratt, merchant, $800,000; Josiah Quincy, $300,000; Josiah Quincy Jr., $400,000; Ruben Richards, metals, $150,000; Jeffrey Richardson, iron, $150,000; Edward H. Robbins, doctor, 5200.000; Nathaniel P. Russell, insurance, $250,000; Samuel Salisbury, $150,000; Samuel Sanford, merchant, $300,000; L. M. Sargent, $150,000; Ignatus Sargent, banker, $300,000; James Savage, lawyer, $150,000; William Savage, physician, $250,000; M. P. Sawyer, $200,000; David Sears,

$1,500,000; George C. Shattuck, physician. $500,000; Robert G. Shaw, merchant, $1,000,000; Benjamin Shurtleff, physician, Illinois lands, $200,000; Henry Sigburney, merchant, $400,000; Francis Skinner, merchant, $300,000; Ebenezer Smith, land, $200,000; John Steams, $150,000; Josiah Sudman, merchant, $150,000; W. W. Stone, manufacturer, $200,000; Samuel Swett, $150,000; John Tappan, $200,000; John Templeton, marble, $150,000; John A. Thayer, broker, $300,000; Thomas Thompson, $300,000; Augustus Thorndike, $500,000; John P. Thorndike, builder, $150,000; George Ticknor, $200,000; Joseph Tilden, merchant, $150,000; Mace Tisdale, leather, $150,000; Samuel Torrey, merchant, $150,000; Samuel Wain, $150,000; Enoch, shipping, $150,000: Ezra Trull, distiller, $150,000; John W. Trull, distiller, $250,000; Frederic Tudor, exporter of ice, $150,000; Phineas Upham, $500,000; Josiah Vose, $150,000; Thomas B. Wales, merchant, $400,000; Thomas W. Ward, banking, $300,000; Artemus Ward, lawyer, $200,000; John C. Warren, surgeon, $300,000; Robert Waterston, $150,000; Benjamin Welles, $300,000; John Welles, $700,000; Ezra Weston, merchant, $300,000; William S. White, $150,000; Joseph Whitney, leather, $150,000: Thomas Wigglesworth, merchant, $600,000; John D. Williams, wine, $1,000,000; Moses Williams, $500,000; Benjamin Willis, $150,000: William P. Winchester, provisions, $500,000; Robert Winthrop, $200,000.

There were quite a number of men in Boston from 1845 to 1850 said to be worth $100,000, among them Charles Frederick Adams, merchant; John R. Adan, lawyer; John Albree merchant; Andrew J. Allen, William Amory, John F. Apthorp, banker; Thomas G. Atkins, dry goods; Edward Austin, merchant; Walter Baker, chocolate manufacturer; Aaron Baldwin, banker; Aaron Bancroft; George Bancroft; Benjamin Bangs, merchant; Sidney Bartlett, lawyer; John M. Barnard, distiller; Thomas Bartlett, druggist; Joseph Bell, lawyer; Alpheus Bigelow; Jacob Bigelow, physician; Charles Blake; Edward Blanchard; Noah Blanchard leather dealer; William H. Boardman, merchant; Nathaniel I. Bowditch; Samuel Bradlee, hardware; Gardner Brewer, distiller; John Bumstead; Thomas O . H. P. Burnham, second hand books; Thomas Cains, glass manufacturer; Nathan Carruth, druggist; George B. Gary; Henry Chapman, ship chandler; Jonathan Chapman, lawyer; Theodore Chase, merchant; James Cheever, leather dealer; Benjamin C. Clark commission merchant; Josiah P. Cooke, lawyer; Joseph Cotton, chain cable manufacturer; Thomas Crehose; Uriel Crocker, religious bookseller; George W. Crockett; Andrew Cunningham merchant; Charles Cunningham; Charles P. Curtis, lawyer; Thomas B. Curtis; Pliny Cutler, grocer; Peter R. Dalton, merchant; John Davis; Samuel Davis; James Davis; Daniel Denny, banker; E. H. Derby, lawyer; Franklin Dexter, lawyer; Thomas Dixon, merchant; Tisdale Drake, wood and lime; Daniel Draper, merchant; John Earle Jr., tailor; J. W. Edmunds, merchant; Henry Edwards; Stephen Fairbanks, hardware; Robert Farley, merchant; Augustus H. Fiske, lawyer; Benjamin Fiske; Samuel Frothingham banker; Richard Fletcher, lawyer; James H. Foster, paper hangings; William H . Gardiner, lawyer; Benjamin I. Gilbert; Timothy Gilbert, piano manufacturer; Pevez Gill, lumber; Jonathan Goddard; Benjamin Gorham, lawyer; Francis A. Gray, merchant; Benjamin D. Greene, doctor; W. P. Greenwood, dentist; John Gore; Jacob Hall distiller; Henry Hall; Andrew T. Hall, crockery; Daniel Hammond; Ralph Haskins. distiller; Prince Hawes, commission merchant; John Henshaw, druggist; Charles Henshaw, chemist; David Hill, grocer; George Hill, dry goods; H. M. Holbrook, dry goods; Peter T. Hosmer, dry goods; George J. Hosmer, hardware; Robert Hooper, banker; Samuel Hooper; John Hooper, stationer; James Ingersoll, merchant; James Jackson, physician; Denting Jarvis, glass; Samuel Johnson; Josiah M. Jones; Joseph G. Joy; Nabby Joy; David Kimball; Jesse Kingsbury; George H. Kuhn, merchant; Charles F. Kupfer, hardware, John Lamson, dry goods; Charles C. Little, publisher; Sargent S. Littlehale,

merchant; Melvin Lord, bookseller; Caleb Loring, merchant; Charles G. Loring, lawyer; Henry Loring; John F. Loring; Francis C. Lowell, life insurance; Charles Lyman; W . H. Mackay; R. C. Mackay; Philip Marett, banker; Jeremiah Mason, lawyer; William Minot, lawyer; George Morey, lawyer; Lawrence Nichols, confectioner; Benjamin R. Nichols, lawyer; W. J. Miles, stable keeper; Joseph Noble, commission merchant; Henry J. Oliver; Simeon Palmer, tailor; James W. Paige, merchant; Elisha Parks, dry goods; Samuel D. Parker, lawyer; Theophilus Parsons, lawyer; Enoch Patterson; John H. Pearson, merchant; Abel G. Pack, dry goods; Silas Pierce, grocer; Payson Perrin; Abel Phelps, liquors; Solomon Piper; George W. Pratt, stock broker; George Pratt, merchant; William H. Prescott; Benjamin T. Reed, railroads; Joseph W. Revere, coppersmith; James B. Richardson; Henry B. Rogers, lawyer; George C. Shattuck Jr., doctor; Lemuel Shaw, judge; Samuel A. Shurlleff, physician; John Simmons, clothing; Henry B. Smith, lawyer; William D. Sohier, lawyer; Phineas Sprague, merchant; Henry B . Stone, banker; Daniel P. Stone, dry goods; W. W. Story, lawyer; George C. Thatcher, iron; Adam W. Thatcher, insurance; George W. Thayer, banker; Joel Thayer, merchant; Samuel Tyler, commission merchant; Elijah Vose, hardware.

The real estate of Massachusetts is valued at $2,000,000,000. Among the more wealthy of Boston in the year 1900 may be suggested, Charles F. Adams, Alexander Agassiz, William H. Allen, Oliver Ames, John R. Alley, Frank W. Andrews, A. F. Arnold, M. E. Atherton, E. Atkins, Edward Austin. D. P. Babson, W. B. Bacon, J. S. Bailey, C. A. Baker, E. M. Baker, W. H. Baker, F. V. Balch, E. A. Bangs, Francis Bartlett, John D. Bates, James H. Beal, M. E. Bean, J. M. Beebe, J. H. Benton Jr., E. M. Bigelow, George N. Black, M. C. Blake, Charles P. Bowditch, R. B. Brigham, P. C. Brooks, J R. Brackett, John T. Bradlee, A. T. Brown, L. G. Burnham, E. R. Cabot, John Carter, E. M. Chick, C. F. Choate, R. Codman, James Collins, E. S. Converse, C . W. Cutting, L. M. Crabtree. C. P. Curtis, N. Gushing, G. A. Dary, John J. Day, D. L. Demmon, W. S. Dexter, C. H. Dill, G . F. Fabyan, A. S. Faulkner, S. S. Fay, Frank Ferdinand, G. S. Fiske, C. P. Flagg, J. M. Forbes, D. S. Ford, J. Foster, A. F. Freeman, Jonathan French, C. E. Frothingham, C. W. Galloup, G. A. Gardiner, W. A. Gaston, Albert Geiger, J. P. Glover, John Goldthwait, Daniel Goodnow, David S. Greenough, David Greer, J N. Grew, John C. Haynes, J. H. Hecht, G. A. Hibbard, F. L. Higginson, W. H. Hill, S. B. Hinckley. C. F. Hovey, George D. Howe, H. H. Hunnewell, E. W. Hutchins, Samuel Johnson, E . D. Jordan, D. P. Kimball, Franklin King, B. Lancy, A. A. Lawrence, J. L. Little Jr., Henry Lee, A. P. Lawring, J. A. Lowell, Joshua Lovett, F. Lyman.

Chapter the Twenty-Ninth: Middle Atlantic States

All that glisters is not gold,
Often have you heard that told;
Many a man his life has sold
But my outside to behold;
Gilded tombs do worms infold.

If thou art rich, thou art poor;
For, like an ass, whose back with ingots bows,
Thou bearest thy heavy riches but a journey.
And death unloads thee.

Poor, and content, is rich, and rich enough;
But riches, fineless, is as poor as winter.
To him that ever fears he shall be poor.

O, the fierce wretchedness that glory brings us!
Who would not wish to be from wealth exempt,
Since riches point to misery and contempt?

When thou art old, and rich,
Thou hast neither heat affection, limb, nor, beauty.
To make thy riches pleasant.
How quickly nature falls into revolt,
When gold becomes her object!
For this the foolish over-careful fathers
Have broke their sleep with thoughts, their brains with care,
Their bones with industry.
For this they have engrossed and pil'd up
The canker'd heaps of strange-achieved gold:

For this they have been thoughtful to invest
Their sons with arts and martial exercises;
When, like the bee, culling from every flower
The virtuous sweets;
Our thighs pack'd with wax, our mouths with honey,
We bring it to the hive; and like the bees,
Are murther'd for our pains.

O thou sweet king-killer, and dear divorce
"Twixt natural son and sire; thou bright defiler
Of Hymen's purest bed! thou valiant Mars!
Thou ever young, fresh, loved, and delicate wooer.
Whose blush doth thaw the consecrated snow
That lies on Dian's lap! thou visible god,
That solder'st close impossibilities,
And mak'st them kiss! that speak'st with every tongue

To every purpose! O thou touch of hearts!
Think, thy slave man rebels; and by thy virtue
Set them into confounding odds, that beasts
May have the world in empire!

What a god's gold
That he is worshipp'd in a baser temple
Than where swine feed!

If money go before, all ways do lie open.

The learned pate
Ducks to the golden fool.
This yellow-slave
Will knit and break religions; bless the accurs'd;
Make the hoar leprosy ador'd; place thieves,
And give them title, knee, and approbation,
With senators on the bench.

'Tis gold
Which buys admittance; oft it doth; yea, and makes
Diana's rangers false themselves, yield up
Their deer to the stand o' the stealer; and 'tis gold
Which makes the true man kill'd and saves the thief;
Nay, sometimes hangs both thief and true man; what
Can it not do, and undo!

Foul cankering rust the hidden treasure frets;
But gold that's put to use more gold begets.

I come to wive it wealthily in Padua;
If wealthily, then happily in Padua.

O, what a world of vile ill-favored faults
Looks handsome in three hundred pounds a year.

When in 1623 Cornelis Jacobsen May landed with thirty families from his ship New Netherlands and gazed about Manhattan island, he could hardly have believed that within two or three short centuries the place would be so crowded with people and houses as to overflow, and fill wide areas across the rivers. Neither would William Verhulst, who succeeded May as director-general of this Dutch colony have believed, nor Peter Minuit who succeeded Verhulst, nor Wouter Van Twiller who succeeded Minuit,—not any one of these several officials who were so ready each to take the place of his predecessor during the first two decades of rulership, nor even the sapient Stuyvesant, who in 1664 passed over to the English under Nicolls the Dutch New Netherland when Nieuw Amsterdam became New Yorke, could have been brought to apprehend that the cow-path which forked to the left beyond the King's farm led by ground so worshipful as to be one day worth twenty pounds for a little square foot of it, and support such stately structures as the Equitable Life and Waldorf-Astoria,—for had not Minuit bought the whole island from the Indians for less than five pounds? But of course prices advanced, and that so rapidly that within a century, that is to say in1689, at a solemn sale by auction fourteen lots near Coenties slip sold at 35 pounds each, and one at the foot of Broad street it was thought might be worth 80 pounds!

A map of the New York of 200 years ago would show the New Amsterdam end of the island with its fort and incipient city cut off from the country by a wall, or the remains of one, extending from one river nearly to the other, whence Wall Street. Near where now is Chatham Square would be seen Wolfert Webber's tavern; between the present Fulton and Warren Streets was the Dutch company's farm; and beyond, Beekman swamp, near Beekman street; Swamp meadow, Fresh Water pond, and then Bogardus' farm. Old Tan's farm, and the Negro plantations,—for there was slavery ashore as well as piracy and privateering afloat in those days, Indians as well as Negroes being held in bondage. North of Maiden Lane and west of Broadway all was open country, while the upper end of the Broadway itself led into the wilderness, Boston post-road deflecting to the right.

When Peter Stuyvesant became director-general of New Netherlands in 1647 by appointment of the Dutch West India Company, he resided on his farm, or bowery, which name the place retains to this day, though the scent of roses has long since left it. Later this same bowerland was the center of fashion, the Bowery Street a popular driveway, wealth and gaiety crowding its borders while yet the Broadway was a country road winding among humble farms and odorous stockyards. Near where is now Rector Street Hendrick Van Dyke in 1655 had a peach orchard. The ripe fruit tempting an Indian woman to theft, Hendrick had her shot to death, the colonists meanwhile fleeing to the fort; for which infamy the savages rose and devastated 28 farms on Staten Island, killing 100 and carrying into captivity 150 white persons. Where now is Jeannette Park, East river, stood a noted hostelry in colonial times, and there about the Dutch burghers drove a thriving trade in boating and produce huckstering. Other notable New York properties of the days gone by were Chelsea, the seat on the Hudson of Thomas Clarke, in 1813 conveyed to Clement C. Moore, under whose ownership it became a country village, about the middle of which was where now is the block bounded by 9th and 10th avenues and 23rd and 24th streets; Lispenard's meadows, known times previous as Duke's farm, King's farm, Queen's farm, and then as Leonard Lispenard's farm, being about where now are Hudson, Canal, and Vestry streets; Abraham Mortier's hospitable residence on Richmond hill, where such notables as Lord Amherst, John Adams, Baron Steuben, Jefferson, Van Birket, Chancellor Livingstone, and Count du Monstiers used to meet, Mr. Benzon owning the place later; and Rutgers residence, which became the pleasure resort Ranelagh, near Vauxhall, both gardens bordering on

Lispenard's meadows. And but a century ago, or even less, so far away was where is now Astor place, that the huts and dwellings there were regarded as a country village. True, there had been ere this spasms of progression, the population which in 1730 was 8,000, increasing to 20,000 in 1770, only to fall off one half through war and fire, then rapidly to recuperate and advance thereafter to the end.

But before New Amsterdam was Beaverwyck, as the Dutch called Albany. For, following Hudson's report of his visit in 1609, and of the picturesque beauty and grandeur of the river, of the abundance of furs and the friendliness of the natives, the Hollanders had come, and ascending the stream to near the head of navigation, had built in 1615 Fort Nassau, the later Fort Orange of the English and sometime Aurania. The Mohegans, the gentle savages were called who thus so kindly received into their homes the seeds of their own destruction, giving to the strangers freely of their lands, or peradventure better satisfying the puritan conscience by selling it to them for worthless trinkets.

It mattered little however in the end, for, attacked by the Mohawks in 1628, the Mohegans became scattered, and in due time were obliterated like all the rest. A century later, that is to say in 1722, the valley of the Mohawks attracted settlers, and so the spoilers were despoiled, and thus goes history spinning itself on forever.

The Iroquois nations, though figuring conspicuously in history, never numbered over 15,000, and in their palmiest days possessed less wealth than physical influence. The Onondagas were the head of the confederacy, its great sachem being first of the fourteen. On a reservation set apart for them in the state of New York they live in peace and plenty, all that is left of them. The Oneidas secured 65,000 acres of land on Green bay, Wisconsin. The Senecas had reserved to them 66,000 acres. The Senecas took part in all the wars, siding generally with the colonists, though permitting La Salle to erect a block house at Niagara. Their greatest man, statesman, orator, warrior, was Red Jacket, or Otetiani, that is to say "always ready." The most noted chief of the Cayugas was Tahgahjute, commonly called Logan, who with all his family and friends was infamously done to death by white men, whom he had all his life befriended. "Who is there to mourn for Logan?" he cried at the last. "Not one." The Susquehannas were a turbulent race, and obtaining firearms from the Swedes terrorized parts of Pennsylvania, Delaware, and Maryland. In 1701 their king, Canoodagtoh made a treaty with William Penn. Soon after 1630 Kiliaen Van Rensselaer, a jewel merchant of Amsterdam, secured possession of a tract of land near Albany, 48 by 24 miles in extent, and founded a feudality, called the colony of Rensselacrswyck, part of which land remained for several generations, that is to say until 1787, in the Van Rensselaer family, whose manor house was in north Broadway, the Visscher house and Schuyler mansion being not far away. The Vanderheyden palace and the Lydius house were built of bricks brought from Holland.

Across the river from New Amsterdam a settlement was made in New Jersey in 1617, the place being called Bergen, but for a long time it was nothing more than a hamlet. Cornelis May in one of his excursions, in 1623, discovered the Delaware, and erected a fort upon its bank opposite where now stands Philadelphia. Later, in 1638, under the auspices of Queen Christina, Peter Minuit brought thither Swedish colonists. In 1665 came Philip Carteret, with a company of English adventurers, and established himself at Elizabeth town as governor. In 1666 thirteen puritans came from Milford, Connecticut, to the Passaic River and settled Newark, according to God and a godly government, hither they had fled from those who had fled from former persecutions, only themselves to persecute the moment opportunity offered. Josiah Ogden, a rich and influential member of this puritan society

in New Jersey, saved his wheat from the weather on Sunday, which his associates stoutly asserted he had no right to do; whereupon Ogden told them in words which, translated into the language of the present century, would signify that they might go to the devil, and turning on his heels established a church of his own, for even a blasphemer could not at that time live respectably without his church.

The Dutch began to trade with the Delawares, on the Delaware and Ohio rivers, in 1616. They were defrauded of their lands in Pennsylvania by the "walking treaty," and finally driven from them by force. Some settled on the Muskingum in 1772 and became good agriculturists. Early in its history Delaware was a scene of contention, Dutch Swedes and English all desiring the best for themselves, and circumvention for all others, red men or white. David Petersen de Vries landed in Delaware Bay some Dutch settlers, who chose for themselves the spot whereon Wilmington now stands, but the Indians killed them all. So the Swedes took possession, erected a fort, and called the place Christina, and the country New Sweden. This the Dutch did not like, and set up Fort Casimir, six miles away. Prinz, the Swedish governor, maintained amicable relations with Stuyvesant, governor of New Amsterdam, until the coming to Delaware in 1654 of a new Swedish governor, Rising, with a fresh band of colonists. Contentions with the Dutch brought upon the Swedes Stuyvesant, with seven vessels and 600 men from Fort Amsterdam, who quickly conquered a peace. But soon Dutch and Swedes go both to the wall together. With the fall of New Netherland fell New Sweden, and New York, New Jersey, Delaware, and Penn's colony across the bay all became English. Thus it was that in 1655 the Dutch ruled the Swedes, and in 1664 the English ruled the Dutch and when the time came for the colonies to determine if it were not better to rule themselves, Delaware responded with a Yea that was felt throughout the land, for it settled many otherwise difficult questions.

The holy experiment of a free colony for all mankind which William Penn assured the people was his purpose in accepting the grant of Pennsylvania from Charles II in 1681, proved eminently satisfactory, the population increasing from the first at the rate of 1,000 a year, and later yet more rapidly, so that in 75 years there were present 200,000 persons, the Quaker element predominating. Penn found some difficulty managing his American interests while fighting in his peace-insisting way for the Quakers in England, but on the whole he did well enough. The capital city, placed on the Delaware and convenient for ships to the ocean, soon had a printing press, set up by William Bradford, and in 1690 a paper mill was built by William Rittenhouse. Benjamin Franklin came from Boston in 1723, and though at that time an unostentatious journeyman printer, he impressed his character upon the place in lines so deep that traces of his influence remain to this day. During the war of independence, Philadelphia was not only the capital of Pennsylvania, but virtually of the colonies. Philadelphia's foreign commerce a century ago was first of all with the West Indies, and then beyond to Europe and Asia. The carrying trade hence consisted largely of beef, pork, flour, apples, onions, butter, and lard, while hither were brought sugar, coffee, oranges, lemons, and pineapples, and from China tea, spices, and silks.

Among the prominent merchants and ship-builders of that day were Thomas Alibone, whose grandson was president of the Bank of Pennsylvania forty years ago; Abraham Piesch, who built more vessels than any other man of his day, having twelve schooners on the stocks at one time for blockade-running in the war of 1812; George Hand, who sailed ships of the larger class, like the Diana, the Telegraph, and the Little George Eyre; William Smith, nicknamed Silver Heels, because he once landed $80,000 in Spanish dollars brought from the Philippine islands; Samuel Wetherill, founder of the society of free or fighting, Quakers, and great-grandsire of the present family; John Vaughn, wine

merchant and philanthropist; John Moss, a man of wealth and high integrity, and whose descendants are many; Jonathan Fell, manufacturer of mustard, chocolate, and spices, and whose business was well polished with age before the Independence; Francis West, and his brother John West, connected with the Cope line of Liverpool ships, this same Thomas P. Cope being no less conspicuous as an opulent merchant than loved for his benevolence; Joseph S. Lewis, president of the Schuylkill Navigation company, and whose father, Mordecai Lewis was largely engaged in the Calcutta and China trade; Robert Ralston, eminent in business and active in his charities; Gerard Koch, who, on subscribing $5,000 to the war fund of 1812, remarked, "this as a beginning, and if a frigate is wanted I will build one." Merchantmen in those days might leave Philadelphia with a cargo of grain and cotton; sell the same at some French port and take in fruit and wine for St. Petersburg, there to exchange it for hemp and iron for Amsterdam, selling the cargo there for specie with which to buy India goods, tea, and silks at Calcutta, then back to Philadelphia, thus concluding a voyage paying ofttimes enormous profits.

Before the ground on which Brooklyn stands was covered with houses, it presented a somewhat forbidding appearance,—an irregular bluff surrounded by low marshy land broken by creeks and inlets. A century or two of intelligent effort has greatly changed things. The marsh lands have been reclaimed, and extensive basins for shipping, and bordered by large warehouses, constructed, with wharves, docks, slips, and every adjunct for the quick and economical handling of freight. There is a large dry-dock, constructed at a cost of over $2,000,000; navy yard with marine barracks, officers' quarters, and warehouses; naval lyceum, marine hospital, besides grain elevators, sugar refineries, oil works, and a multitude of other manufactories. The now immense ferry travel was begun with row boats, but in 1814 the ferries were leased by Robert Fulton and steam applied. Next to New York and Philadelphia, Brooklyn has more manufacturing establishments than any other city in the United States,—in round numbers 6,000, with a capital of $85,000,000, employing 50,000 hands, wages $26,000,000, value of material $150,000,000, yearly product $210,000,000, consisting largely of boots and shoes, sugar, petroleum, cordage, and hats. A city of churches, it is called, and there are many educational and benevolent institutions, academy of music, art association, historical society, circulating and reference libraries, and scientific associations and clubs. A city for the living there are hereabout several cities for the dead—seven public cemeteries, and many more belonging to secret and other societies. Famed for its beauty and monuments is Greenwood, of 450 acres, 6,000 here finding their last resting place every year. Cypress Hill cemetery has 400 acres, the Evergreens 275 acres. In fact, at this rate the dead in time will leave scant space for the living. For the present, however, there is room enough in Brooklyn; besides innumerable elegant homes, there are an abundance of parks and pleasure grounds, zoological garden, and the rest, spacious and costly.

It seemed plausible to the French, Fulton's plan when he was in Paris seeking patronage for an idea which was destined in time to revolutionize commerce, and which Napoleon even surmised might make great changes in naval warfare." But it was foreordained that to America should belong the honor. Robert Fulton was a Pennsylvania man, born in 1765 at Little Britain, and became first artist and then engineer. Some years in Europe enlarged his mind and concentrated his purposes. From his design in 1807 the Clermont was built with capital furnished by Robert R. Livingston, and from that day there have been steamboats on the Hudson River and on Long Island sound. That same year John Stevens sent the Phoenix to sea under steam to Philadelphia, the first steam vessel to brave the dangers of the ocean. The steam engine for Fulton's boat was brought from England by Jacob Barker

in 1806. Barker was a wealthy ship owner, economist, and banker, doing business in New York. There was but one man in the United States who then owned and sailed more ships than he, and that was William Gray of Boston. Barker was active in politics and public affairs. He was elected to the New York senate, made loans to the United States government, advocated the purchase of Louisiana and the building of the Erie Canal, and sustained Jefferson, Madison, and Jackson in their political measures. The first incentive to ship-building in America was the fisheries,—this in the 16th century. Ships of a larger class for whaling and the merchant service were later built at New York and on the New England coast; a few war ships were constructed in 1776 and 1812, and some transatlantic sailers afterward; but it was the gold of California, and the lines of clipper-ships established to sail round Cape Horn, that brought the art to its full beauty and perfection in America—for these white-winged messengers of commerce were nothing less than works of art. Among the great builders of that day were William H. Webb, Samuel Hanscom, and Donald McKay. W. H. Webb, shipbuilder and son of a shipbuilder, was born in New York in 1816. His father, Isaac Webb was for some time after the war of 1812 with Henry Eckford. The son assumed responsibility at an early age, building the packet-ship Oxford for the Black Ball line at twenty. After the death of his father and the firm of Webb and Allen continued for three years, then dissolved. W. H. Webb continuing and building some 150 vessels in all, merchant vessels and men of war, among them ocean steamers for the Savannah and New Orleans lines and for the United States and Pacific Mail steamship companies in the California trade, and steam war ships for home and foreign governments. Ship building has again been revolutionized within the last decade, battle ships particularly, and since the beginning of the war with Spain.

Under British occupation New York was governed first by Richard Nicolls, then in 1668 by Francis Lovelace, who bought Staten island from the Indians; in 1672, Edmund Andros, who filled up the ditch on Broad Street, removed the tan-pits and slaughter-houses to some distance beyond the walls, set free all Indian slaves, and gave to the burghers the inestimable privilege of bolting and exporting flour. In 1683 Thomas Dougan was governor; then Francis Nicholson; and 1692-1898 Benjamin Fletcher, who winked at piracy, received part of the spoils, and made amends by giving to the church the revenue for seven years of the Kings farm, which cost the governor nothing and saved his soul, laying meanwhile the foundations of a great fortune for Trinity. The earl of Bellomont next; then Lord Cornbury, 1702-1778. Robert Hunter, William Burnet, John Montgomery, under whose regime a fortnightly stage line to Philadelphia was established. George Clinton ruled and plundered the place for a decade, 1743-1753. Kings college being begun meanwhile and in due time came the continental congress, Washington, and Independence.

About 1640 Johannes de Peyster came to New Amsterdam and founded a family, the several members of which have ever since been prominent in New York for their wealth, talents, patriotism, and benevolence. Johannes himself held office under both Dutch and English regime. His eldest son Abraham, was mayor, supreme judge, governor, and treasurer of the provinces of New York and New Jersey, and intimate friend of William Penn, and of the colonial governor, the earl of Bellomont. At his house in Pearl Street, erected in 1695, Washington made his headquarters. Abraham the second was a man noted for his wealth, benevolence, and political influence; three of his grandsons were army officers, and the son of one of them. Frederick graduated at Columbia College and became master in chancery. John Watts de Peyster interested himself in state and municipal affairs, and wrote a number of important practical and scientific works. Three of his sons were officers in the union army during the civil war. John Watts de Peyster was also distinguished for his literary talent,

as military writer, biographer, and critic. The descendants of his maternal grandfather, John Watts, founder of the Leake and Watts orphan house, Morningside park, trace their ancestry back to the English conquest. Stephen Watts commanded a battalion at the age of 22, while his son George Watts was aid to Winfield Scott.

Peter Warren, captain, commodore, or sir, was a very great man in New York a century and a half ago. A fine, fat, dashing fellow, he was 25 years of age in 1728, when he appeared on the American station as commander of the British frigate Solebay, and subsequently in other vessels. In 1744 with 16 sail at the Leeward Islands he captured as pirate, privateer, or other murderous capacity 24 prizes, from one of which alone he secured plate valued at £250,000. This was a large sum in those days, especially when we consider how many miles of Broadway it would buy. He was content with only 300 acres, his Greenwich farm, the city presenting him a little more, all of which fortune became still larger by his marriage with the heiress Susannah De Lancey in 1745. Warren occupied the Fay house at the foot of Broadway, at this time, building himself an elegant country seat overlooking the Hudson River. The Warren property was cut up into lots of 12 or 15 acres each, the homestead with 55 acres selling in 1788 for $2,200, Abraham Van West purchasing it, with the square formed by Perry, Charles, Bleecker, and Fourth streets for $15,000 in 1819. Round the Warren residence gathered other notable New Yorkers. James Jauncey, William Bayard, and Oliver De Lancey, so that in 1767 this was the most fashionable and charming of country retreats. From the Bowery to Fifth avenue, north of Greenwich lane, was the Eliot estate, later owned and in 1801 bequeathed by R. R. Randall for the Sailors' Snug Harbor. Randall bought the land in 1790 from one Poelnitz for £5,000; in 1800 the income from it was $4,000; in 1848, $40,000; in 1870, $100,000; and in 1895, $350,000,

At the time when in 1783 the Americans had regained possession of the city, and the political control of the state was divided between the three families, the Livingstons, the Clintons, and the Schuylers, Aaron Burr, with an extensive and lucrative law practice, occupied an elegant mansion on Richmond hill, then a fashionable suburb of New York city. There he lived in lavish hospitality, and fought for political supremacy, not only with the Schuylers and Clintons and Livingstons, but with Alexander Hamilton, than which nothing but his life’s blood would satisfy him.

It maddened Burr to find in Hamilton an abler man than himself, and so he fastened a quarrel on him and killed him, the duel proving Burr’s financial as well as political ruin. For fifty years thereafter his widow, daughter of Philip Schuyler, continued to wear the mourning attire of the time. General Schuyler's position at this time was a proud one. Of good family, great wealth, the inheritance from his grandfather, Philip Pierterson von Schuyler, who had come from Holland and settled in Albany in castle garden 1650, being largely increased by marriage with Catherine Van Rensselaer, the friend and peer of Washington, and recognized by congress as a true patriot, there were indeed none to stand before him. The land which under authority of the Dutch West India company Kiliaen Van Rensselaer, before mentioned, had acquired in 1630-1637 to the extent of 700,000 and more acres on the Hudson River, was farmed out by him and his successors to tenants under a kind of feudal tenure. Stephen Van Rensselaer, fifth in descent from Kiliaen Van Rensselaer, and whose mother was a Livingston, inherited seigniorial rights to some 436,000 acres of land in Albany and Rensselaer counties, divided into 3,060 farms, which he was ever ready to improve but not to sell. Graduating at Harvard in 1782, he married a daughter of Philip Schuyler, became active in the political and industrial affairs of the state, promoted the Erie Canal, directed geological surveys, and founded in 1824 the Rensselaer Polytechnic Institute at Troy.

The founder of the Livingston family in America was Robert Livingston, whose grandson Philip was prominent as a statesman of high repute long before he became a member of the continental congress and signed the declaration of independence in 1776. Born at Albany in 1716, he graduated at Yale, became a merchant in New York, and was elected to the legislature in 1758. He gave liberally to colleges, and sold part of his property that he might the better aid his country.

Charles Clinton, founder in New York of the Clinton family, came from Ireland to Philadelphia in charge of a company of emigrants in 1729. His son, George Clinton, studied law, was in 1775 delegate to the continental congress, by which body he was made brigadier-general and sent to fight for his country. He was five times governor of New York, and fourth vice-president of the United States. Another son of Charles Clinton was James, brigadier-general in the revolutionary war, and commanding at Fort Clinton on the Hudson when attacked by the British in 1777. De Witt Clinton, son of James Clinton and Mary De Witt, born at Little Britain, and student at law, was the first graduate of Columbia College after the name Kings College had been dropped. He was successively state senator, mayor of the city, and governor of the state of New York. He was the father of the Erie Canal, which united the waters of the great lakes with those of Hudson River and the Atlantic Ocean. With Governor Clinton in his efforts in behalf of the Erie Canal, was Gouverneur Morris, delegate to the continental congress in 1777, passing the winter at Valley Forge with Washington and chairman of the Erie Canal commissioners from, their first meeting in 1810 to near the day of his death, which occurred in 1816. He was chosen by Robert Morris, financier and signer of the declaration of independence, and after as superintendent of finance, some mercantile speculations he purchased the patrimonial estate at Morrisania.

The cities and communities of the eastern seaboard still retain much of their original individuality, notwithstanding the changes wrought by the constant and enormous evolution of wealth. Pennsylvania has in round numbers 10,000 miles of railroads costing $1,000,000,000.

During the decade 1880-1890 manufactures doubled; with the coal mines and wells, development in this direction is practically limitless. Here, indeed, is the home of anthracite coal and rock-oil. Philadelphia has 2,000 miles of streets, along which stand 165,000 dwellings, 110,000 of which are owned by the occupants. Six people live in a house in Philadelphia; in New York, sixteen. All pertaining to the Quaker city is in the main broad and spacious, spacious streets, spacious rivers, and many parks. In Fairmount, beautiful as a dream, with its somewhat less than 3,000 acres, stand as mementoes of the Centennial exposition Horticultural and Memorial halls, while on the outskirts is the zoological garden of 35 acres. I shall not attempt to enumerate the important public and scientific edifices, the churches and hospitals, the libraries and colleges; their name is legion. Age here is eminently respectable; instance Independence hall, completed in 1735; Pennsylvania hospital, 1755; United States mint and customhouse; Girard bank and college. There are temples to the secret societies, to literature, and the fine arts; an $8,000,000 post office; $13,000,000 city hall buildings, and thousands of smaller specimens. The Academy of Natural Sciences of Philadelphia, organized in 1812, has a fine museum and library, and is in some respects the most important scientific institution in America. In conchology it is surpassed in the world only by the British Museum, and in ornithology by the museum of the University of Leyden. Before this in date, but not in importance, was the American Philosophical society, established by Benjamin Franklin in 1769. Harrisburg, the capital of Pennsylvania, has the usual state buildings, arsenal, and cathedral; also extensive manufactories, iron and steel, cotton, leather, and lumber.

In New Jersey the supply of magnetic iron ore seems inexhaustible. Zinc ore is found in the crystalline limestone, from which rock also good lime is made. On the southeast side of the Kittatinny Mountains is the Hudson River roofing slate, while on the northwest side are the limestones from which Rosedale cements are made. Trenton, the capital of the state, is a city of manufactures, iron steel stone and earthen ware predominating. At Princeton, besides the college of New Jersey, are many fine collateral buildings and educational institutions. During the last half century the growth of Jersey City has been rapid, the population which in 1850 was 6,856, becoming 120,000 in 1880, and 164,000 in 1890. Several great railways start or terminate here, fleets of ferry boats connecting them with New York. It has become prominent for mills and manufactories, flour, sugar, steel, soap, pottery, tobacco, and fifty other things being made here in greater or less quantities. The stations of the New York Central and the Pennsylvania railways in New York and Jersey City are marvels of management. At the several city offices of these and other railway and steamship lines tickets may be taken for travel quite around the world. The Southern Pacific and Morgan line, for example, transports passengers and freight by its own cars and steamers to New Orleans, San Francisco, and China, there to connect with the Oriental lines for India and Europe. Newark, on the Passaic River, has fine manufacturing and commercial facilities. It is called the Birmingham of America, and so great and varied are its industries that I cannot enumerate them all; suffice it to say that all the materials in commerce are used, wood, iron, cotton, wool, leather, all the metals, as well as chemicals tobacco and silk. Pennsylvania was early in the silk industry, sending her product to England in 1726. After the civil war, in Paterson, New Jersey, called the Lyons of America, fifty silk factories arose. Brooklyn makes silk laces and handkerchiefs. California had spasms of silk culture in 1854 and 1871, but they died away. Glass making began at Salem in 1639, and at Boston in 1792. There was a glasshouse in Pennsylvania in 1683. Glassboro, New Jersey, was established in 1775, then Lancaster, and not long afterward Pittsburg took the lead in this industry, and maintained it until the product from 45 factories amounted in 1865 to $6,000,000, since which time the product in the United States has reached $25,000,000, Pennsylvania still retaining the lead. In 1829 was completed the Chesapeake and Delaware Canal, 13 miles in length, at a cost of $2,250,000. Such was its benefit to commerce, that it was proposed to enlarge it to a ship canal for ocean vessels. Besides their water facilities all these states are plentifully supplied with railroads. Delaware is prolific in small fruits, which are raised in large quantities for the markets of Pennsylvania and New York. It is in other respects also an agricultural state, growing wheat and corn as well. At Wilmington, besides machine shops, are carriage morocco cotton and paper factories, and six miles away the Du Pont gunpowder works. New Castle has cotton, woolen, and rolling mills. The vast fortune, placed at $100,000,000, acquired by the Du Fonts in the manufacture of gunpowder on the bank of the Brandywine, has not been unattended by sad results, Elexis in 1857, and Lamotte in 1884, giving their lives to the cause. There are about 100 buildings in the works, and there have occurred many explosions, killing from five to forty at each explosion. The Du Ponts own about four-fifths of all the powder-mills in the country. Eugene Du Font is the present head of the family.

The name Porter is prominent in the annals of the honorable. Andrew Porter fought in the war for Independence; his son David R. Porter was governor of Pennsylvania; his nephew. Andrew, general, was in the Mexican and civil wars; Horace Porter was in the civil war. Another David Porter was naval officer in the war of 1812; David K. Porter, his son, was admiral: another son, William D. Porter, was commodore; Fitz John Porter, nephew of David Porter, was general in the civil war. J. S. Porter was an author; P. B. Porter a general, and Noah Porter president of Yale College. Probably the greatest

financier of his day was Robert Morris, 1734-1806, for there is nothing so difficult to manage as money where there is none. First as clerk in the counting-house of Charles Willing, then as partner of his son, then as member of congress and manager of the fiscal affairs of the nation, he displayed marked ability. And yet he seemed unable to care for himself; for investing in lands, a proceeding which has led to the founding of so many great families, he lost all, and lingered out a cheerless old age in prison for debt.

Since the time of Franklin Philadelphia has ever been prominent in educational matters. Nor was Stephen Girard's benefaction ever more highly regarded than now. Because of certain peculiarities of habit and disposition, and because he would not make his college sectarian, as was the custom of the time, but rather excluded clergymen, there were not wanting those to malign, and call the founder miser, infidel, and void of natural feeling and affection. Such was by no means the case, as is proved by many acts of kindness, as well as by the crowning act of his life. Not every man is bad who cannot get along with an ill-tempered or insane wife. During the yellow fever scourge which swept Philadelphia in 1793, driving out among others many kind and charitable people, this one-eyed man of money left his bank and his bags and ministered with his own hands and presence to the plague-stricken poor. During the war of 1812, when government credit was so low that but $20,000 of a loan of $5,000,000 was subscribed, Girard took the whole of it and saved the credit of the nation. And yet he was only a French sailor man, born at Bordeaux in 1750, and driven into the Delaware River by a privateer. Selling his vessel and cargo, he gave himself up to money getting, first as merchant and then as banker which in due time, with rigid economy and self-denial resulted in a fortune of $7,500,000, since his death grown to $26,000,000. With this money he left minute instructions how a college for orphans should be founded, and the buildings erected,—the main edifice of white marble and pure Corinthian architecture, placed in 41 acres of playground and gardens, and surrounded by a wall ten feet high, which with five other buildings now constitute the college. Himself of the strictest integrity he directed that sound, morality should be taught, but no enforced religion. Thus he lived and labored, and wrought out for his fellow men this great benefaction. I do not say for the love of God, or of humanity, or from the inexorable necessity to work; I only my fecit he did it.

The weaving of Axminster carpets in America was begun by William P. Sprague, in 1791, in Philadelphia, which has ever since been the leading city for carpets, though for thirty years after Sprague began few mills were started. Though among the foremost in carriage making. Philadelphia is obliged to share the honors with New York, Chicago, Boston, and Cincinnati.

The general wealth of the people of the United States, and the extent of country having good roads make this industry large and important. John Dickinson, the Pennsylvania farmer as he was called, but statesman and patriot as he was in fact, lived in Philadelphia before the Independence in elegant style at Fair hill, an estate which came to him with Mary, his wife, from her father, Isaac Norris. He was closely associated with such men as Benjamin Franklin and John Adams in their efforts to establish human rights in America. In return for his liberal assistance in founding a college at Carlisle, in 1782, the institution was called Dickinson College. On Bush hill stood the mansion once occupied by the colonial governor, Andrew Hamilton, afterward by the vice-president of the United States, and later still by the scourge stricken poor of 1793. Through the efforts of Benjamin Franklin $10,000 was raised in 1751 by the citizens of Philadelphia for the Academy and Charitable School, which in due time became the Pennsylvania university. To the scientific school of this institution Lenning gave $750,000, and Charles C. Harrison and his brother endowed the John Harrison laboratory of

chemistry with $500,000 in honor of their grandfather. George Pepper bequeathed a million to the schools and charities of Philadelphia.

In 1837 the Drexel banking house was founded by Francis M. Drexel, and rose to wealth and high distinction. Two sons continued the business after the father's death, A. J. Drexel, who founded the Drexel Institute, giving thereto over $2,000,000 besides bequeathing $1,000,000 to an art gallery and $100,000 to the German hospital, and F. A. Drexel, who also gave liberally to charity. Miss C. A. Drexel took the black veil at the convent of the Sisters of Mercy, in 1890, after endowing a new order with $7,000,000. John I. Blair of New Jersey, merchant banker and politician, made most of his millions in building and operating western railroads, notably the Union Pacific, in connection with Oakes Ames and Charles Francis Adams. He was charitable in his way, giving liberally to sectarian colleges and churches. A political power both during and after the civil war was Simon Cameron, who at one time engaged in business and made money.

James A. Dallas and George M. Dallas, father and son, were both prominent statesmen of Philadelphia, the former with Albert Gallatin in the direction of government finances and banking, the latter as diplomat and vice-president of the United States. Gallatin was a Swiss who came to America in 1780, and after failing in other things entered politics, and in due time became congressmen and secretary of the treasury. The Careys, Mathew and Henry C, father and son, were noted no less for their learning than for their wealth and enterprise. They were printers and publishers of newspapers and books from 1785 to 1836, and authors of many economical works of the highest order. John Lowber Welsh, father and son, have gained distinction, the former as minister to England and manager of the Centennial Exposition of 1876, and the other as financier and manipulator of street railways and traction companies. Arthur St. Glair in 1762 brought a colony of Scotch settlers to Pennsylvania. He was general in the revolutionary war, and a member of the court-martial that condemned Andre as a spy.

From the opening of the 19th century New York City progressed rapidly. Buildings were erected in City hall park; Astor's residence gave place to the Astor house; Washington square, where had been the Potters field, became the fashionable quarter; Samuel B. Ruggles laid out Gramercy park; the farms and orchards around Astor place disappeared and Grace church, the Astor library, and Cooper institute arose; lines of fast sailing ships were established to Liverpool and Havre; the steam engine and printing press were utilized; Low, Griswold, and Aspinwall inaugurated the era of clipper ships by lines to California and China; Thompson's Madison cottage gave way to the Fifth Avenue hotel; the New York Central, Erie, and Hudson River railroads were built; lines of telegraph were completed in 1845 to Philadelphia, in 1846 to Boston, and in 1847 to Albany; the dedication of East River bridge occurred in 1883; Bartholdi's statue of Liberty Enlightening the World was unveiled in 1886; and the population which in 1830 was 200,000, in 1860, 800,000, and in 1880, 1,200,000, became, with the environs comprising Greater New York, 3,000,000. Broadway, with its five miles to Central Park and nine miles of boulevard continuation, is the longest street of elegant business and residence houses in the world, while Fifth Avenue is a name synonymous with all that is elegant and expensive in luxurious living. Here and in the vicinity are, beside the Vanderbilts and the Astors Huntington, the Goelets, the Havemeyers, the Stuarts, Russell Sage, Bishop, Depew, Flagler, Whitney, Flower, and a host of others whose fortunes range from a hundred millions down. Wall Street, likewise, is another name for wealth, and the rapid revolution of the wheel of fortune. Central Park, with its 840 acres, retains much of its natural beauty, in its rocks, lakes and woods.

Begun in 1857, nearly $200,000,000 have here been spent. Prominent objects are the Dairy, the Carrousel, the Egyptian Obelisk, Menagerie, Casino, and Reservoirs. Riverside Park and drive also present scenes of exquisite beauty. Here, also, and in scores of other parks and squares are innumerable busts, statues, and monuments, conspicuous among which is Washington Memorial arch in Washington square. Trinity became the richest church in the United States. Besides the main edifice at the head of Wall Street, there were four branch churches built. The names of its patrons and promoters may be read on the street corners, Vesey, Reade, Ludlow, Beekman, Murray, Desbrosses, Livingston, Chambers, and Clarkson. The corporation bought lots on these and other streets from time to time, which are worth now perhaps $20,000,000. A list of the more important buildings and business houses would here be impracticable, but I will mention a few as representative of metropolitan greatness in this first of republics. In the lower part of the island, high buildings are becoming common, as those of the World and other newspapers, the Home Life, Mutual Life and other insurance companies; the Washington and other office buildings. For hotels, beside the Waldorf-Astoria I might mention the Hoffman house, the Imperial, New Netherland, and Savoy as examples. Churches—Trinity, Grace St. Patrick, Bethel, St John and scores of others. For public buildings there are the post office, mint, city hall; some fine banking institutions,—Clearing house, Ninth National, New Amsterdam, Mount Morris; club houses—Manhattan, Union, New York, Metropolitan; theaters—Madison Square, Lyceum, and Opera houses; mercantile houses,—Arnold and Constable. Lord and Taylor, Tiffany, Sloane, Wanamaker, Borgfeld, Jaffray, Morgan, McCreery, and 500 others. The Hoe works, where saws and printing presses are made, at Grand and Columbia streets, are the result of the evolution of this industry in America. Robert Hoe came from England in 1804, and the present head of the firm is the third of that name. The Standard oil building is at 26 Broadway; American sugar refinery, Brooklyn; American Bank Note company. Trinity place; Ansonia Clock Company. Brooklyn; Ironclad Manufacturing Company, Brooklyn; Steinway Piano factory, Park avenue; New York Biscuit company,—this will suffice as examples.

The largest circulating library in New York is the Mercantile; the united Astor Lenox and Tilden foundations, as organized for their new building on the site of the Croton reservoir. Fifth Avenue, is one of the largest and most complete reference libraries in the world. James Lenox, born in the city of New York in 1800, inherited great wealth from his father, part of which was a farm of 300 acres in about the center of Manhattan Island, and through which Fifth Avenue ran later. He was an ardent lover of books, his special interest being in works relating to America. The Tilden trust came through a desire of Samuel J. Tilden to found a library. These three great collections united give to writers and scholars in America equal advantages with those of Europe. The Lenox property is valued at $5,500,000, Astor $2,000,000, and the Tilden $2,000,000.

Walldorf, near Heidelberg, was the birth place of John Jacob Astor, who came to the United States at the twenty, in 1783.

Becoming interested in the fur trade, he devoted himself with industry and intelligence to that occupation, becoming ultimately the wealthiest man at the time in the United States. Among other projects in connection with the fur trade, he proposed to establish a line of posts from the Mississippi River to the Pacific Ocean, and thence by way of the Hawaiian Islands to China, India and so around the world. In 1811 he founded Astoria, at the mouth of the Columbia River, as his metropolitan post on the Pacific. Failing to carry out his views in this respect, he bought land and built houses in and old stock exchange Philadelphia around New York, investments which could not possibly have been

better for his descendants. Besides many other bequests, he gave $50,000 to the poor of his native town, and $400,000 to found the Astor library. He was worth $250,000 in 1800, and $20,000,000 when he died, in 1848. The lot on Lafayette place, 80 by 120 feet, was set apart for the library by the founder. William B. Astor in 1856 giving ground adjoining, of equal dimensions, upon which a building was erected in 1895 similar to the one previously built by order of his father, at the same time making a further donation to the library for books and the library fund of $50,000. William B. Astor, 1792-1875, eldest son of John Jacob Astor, born in New York and educated at Heidelberg and Gottengen, became partner with his father in the fur trade, forming in 1827 the American Fur company, with wide connections and an enormous business. Besides owning 700 houses, William invested in railway, coal, and insurance companies. He was a liberal, high-minded man, his gifts and bequests to the Astor library alone amounting to $550,000. The estimated value of the Astor estate at the time of his death was $45,000,000. He was succeeded by his son John Jacob Astor, 1822-1890, who added a third building to the Astor library at a cost of $250,000, besides giving largely for the purchase of books. He founded the New York Cancer hospital, and gave largely to St. Luke's hospital. His son, William Waldorf Astor, graduated at Columbia and became state senator in 1879, besides writing two romances of merit. The Astor estate is now estimated at $200,000,000. There are many fine hotels in the world, but beyond question the two most elegant, costly, and artistic, within and without, are the Waldorf and the Astoria, on Fifth Avenue, the former the property of William Waldorf Astor, and the latter of John Jacob Astor.

From his father, Peter Smith, partner in the fur business with John Jacob Astor, Gerrit Smith inherited a large fortune, consisting for the most part of land in almost every county in the state of New York. Gerrit Smith lived and administered his vast estate at Peterboro. He gave land in large quantities to public and private charity, distributing in one year, 1848, 200,000 acres in tracts of 50 acres. He contributed largely to the colonization and anti-slavery societies, and was a friend and supporter of John Brown, giving him special and substantial aid in his attack on Harper's ferry. Men now great though then derided, clustered round Arthur Tappan and his brother Lewis, dry goods merchants and abolitionists of New York. They fostered the bible and tract societies, and founded the New York Journal of Commerce, Horace Bushnell being one of the editors. Their store and Arthur's dwelling were mobbed, and their trade with the south threatened. "Our goods and not our principles are for sale," they said. Arthur Tappan was the first president of the American Anti- slavery society; he once delivered William Lloyd Garrison from the Baltimore jail by paying his fine.

Kinlock Stuart, father of the great sugar and syrup men of half a century ago, was a small candy dealer in Barclay Street, where he began business in 1805. He was a thrifty Scotchman of strictest integrity, a large giver when large gifts were rare, and he made for his sons, Robert L. and Alexander Stuart, a fortune of $100,000. These introduced the steam-refining process, and their sales during the decade 1860-1870 were $36,000,000 a year.

Jason Gould, or Jay Gould, the name by which he is better known, was born at Roxbury, Mass., May 27, 1836. His parents were John Burr Gould and Mary More, who was descended from an old Scotch family, that emigrated from Ayrshire in 1772. The Goulds, or Golds, were a good English family, coming from St. Edmondsbury to Fairfield, Conn., in 1646. The pioneer ancestor was Major Nathan Gold, whose son, Nathan, Jr., was deputy governor of Connecticut in 1706 and chief justice of the supreme court of the state in 1724. Several of the family were soldiers in the American revolution. Colonel Abraham Gold, Jay Gould's grandfather, married Elizabeth Burr, whose father was one of the

founders of Springfield, Mass. Colonel Abraham Gold was the first of his line to spell his name Gould. He was killed at the head of his regiment during the revolution. Captain Abraham, his son, settled in Roxbury in 1780, and his son was John Burr Gould, the father of the subject of this sketch.

Young Jay was educated at the district school and at Beechwood and Hobart seminaries. At the age of seventeen he studied Latin and Greek at Albany. His constitution not being strong, he could not work on the farm, so his father started a hardware store in Roxbury, in which the son began as a clerk, and soon became a partner and chief manager. During his leisure hours he studied surveying, speedily becoming competent, and his next step in life was on his own account. In April, 1852, he was engaged to survey and map Ulster County, New York at a salary of $20, and afterwards $30 a month. He took in partners to assist him, and came out with $500 clear. He tried hard to realize enough money to go to Yale, but this dream was never realized. Mr. Gould however became a certified civil engineer. In 1853 to 1856, he surveyed and mapped the counties of Albany, Delaware, and Sullivan, and the town of Cohoes. He also superintended the mapping of counties in Ohio and Michigan. His first railroad experience was the surveying of the railroad from Newburg to Syracuse, and of the Albany and Niskayuna Plank road. The young man in these contracts made his first large profit, realizing $5,000. During his surveying in Delaware County, Pennsylvania, he wrote a history of the county, but in 1856 the manuscript was burned. He rewrote the whole book, nearly all from memory, and it is a good reference book to this day.

He founded the town of Gouldsboro in eastern Pennsylvania and established a tannery. He felled the first tree, built a blacksmith shop and cabin, constructed a plank road, organized a stage route and two churches, built a schoolhouse, created a bank, and became postmaster. The firm of Jay Gould and company was organized and the tannery transacted a large business. After a dispute with his partner he sold his interest and the tannery fell into decay and ruin. About 1860 Mr. Gould became first identified with railroads. He purchased bonds of the Rutland and Washington railway company and transformed a bankrupt road into a good paying corporation. From this time forth his career is a matter of history. His financial transactions have been the marvel of the whole world and it is said of him that he never broke a promise and always kept his word. As a railroad manager he was connected with the Union Pacific the Texas and Pacific, the Wabash, the Erie, the Cleveland and Pittsburg, and the Missouri Pacific. All of them have benefited by his management, and developed into valuable properties.

He assisted Cyrus W. Field out of his troubles with the Manhattan Elevated, at great inconvenience to himself, and he made the road a great public benefit and profitable institution. Among other great corporations that are due to his genius for organization and development are the Western Union Telegraph company and he at one time controlled all the cable lines to Europe, with ocean cables to Europe, West Indies and South America.

Though giving largely to charitable and philanthropic enterprises, Jay Gould's gifts were made on condition that no publicity should be given. His purity in private life, his generosity, and his fidelity to his friends were proverbial.

Notwithstanding his strenuous business life, Jay Gould was an ideal husband and father, devoted to his family and finding his greatest pleasure in his home.

At his death in 1892, he left an estate declared to be worth $100,000,000 to be divided among six children: Helen Miller, George J., Edwin, Howard, Anna, and Frank Jay.

His son, George J., succeeded to the great business responsibilities, and at once took a prominent position Helen Miller in the financial world, administering the vast properties under his control with judgment and skill. Gould, eldest daughter of Jay Gould, has won national esteem for her many charitable acts and practical efforts to lessen the burdens of the unfortunate, besides carrying out in large measure her father's plans for the wise encouragement of educational and other worthy institutions.

The Garrisons are of the best stock of Manhattan Island, being among the earliest Hollanders settling in New Amsterdam, on one side being the Garrisons and Coverts, and on the other the Kingslands and Schuylers, all old Knickerbockers. Cornelius K. Garrison was born near West Point on the Hudson in 1809, thence going to New York to study architecture. But falling into the active affairs of the times stirred by California gold, he in due time became founder of the Nicaragua steamship line, banker, and mayor of San Francisco. He was always ready with his money, not only for moral and benevolent purposes, but for any public good work. His salary as mayor he divided equally between the two principal orphan asylums of San Francisco, and during the civil war he fitted out with his own money to a great extent the Butler Ship-island expedition.

William Re Tallack Garrison, son of C. K. Garrison, was born in Goderick, Canada, June 18, 1834. After graduating at Palmyra College in 1852, he joined his father in San Francisco, entering the bank of Garrison and Fritz. He was his father's adviser and associate in all his enterprises, and for five years was his active successor. He became identified with the leading interests of the Pacific coast and was appointed an aide on the staff of the governor of California, and was for several years acting colonel of the state artillery.

In 1864 he rejoined his father in New York City, where he resided until his death. He established steamship lines between the port of New York and New Orleans, Savannah, Cuba, and Brazil. In 1876, he became largely interested in railway matters, being drawn in that direction by his father's purchase of the Missouri Pacific property. He was vice-president and acting president of the company until the road was disposed of to good advantage.

As his father had been a pioneer in developing western navigation, William became prominent in the cause of rapid transit in New York City. He was made president of the Metropolitan elevated railroad. Subsequently, when the Manhattan railroad leased the two rival lines, the Metropolitan and New York, he was chosen president of the consolidated company. Mr. Garrison's reputation for administrative capacity and ability was such that other capitalists sought to secure his cooperation when undertaking any project of unusual magnitude. He was vice-president of the Wabash railway company, a director of the Mercantile Loan and Trust company of New York, the Mutual Gas Light company of Boston, the Hoosac Tunnel and Western and the Northern Pacific railways, and the United States Life Saving service.

He was also identified with many organizations of a charitable nature and was much interested in the promotion of liberal education. He was president of the New York club, and a member of the Union, New York Yacht, Jockey, and many other organizations of New York City. His knowledge of and

attention to even the minutest details was an important factor in his success. His memory was remarkable, while upon questions of honor he was uncompromising.

In the midst of his career a railway accident at Elberon, July 1, 1882, terminated William Garrison's life. He was married September 25, 1856, to Mary Elizabeth, daughter of General James Madison Estill of Kentucky, then commander of the state forces of California. She is a direct descendant of Captain James Estill, the historic hero of the Kentucky Indian wars and her great-grandfather was for fifty years judge of the supreme court of that state. Her father's family was allied by marriage to Sir William Wallace, the hero of Scotland, and its original representative in America. Wallace Estill, was commander of a company of cavaliers who settled in Virginia in 1666 under letters patent from Charles II. After following the fortunes of the elder Charles, he married Mary Ann Campbell of the Argyle clan. Mr. and Mrs. Garrison had four children: Mary Noye, wife of Vicomte Gaston, Chandon de Briailles of France. Martha Estelle, wife of the Hon Charles Maule Ramsay, son of Admiral Ramsay, William Re Tallack Garrison, married to Constance Clementine Coudert, daughter of Charles Coudert, and Katherine Esther Garrison.

Three times the great showman, P. T. Barnum, raised himself from earth to fortune. Born in Bethel, Connecticut, in 1810, Barnum was thrown upon his resources at fifteen and was successively clerk, editor and village storekeeper before he engaged in the business in which he achieved world-wide reputation. Exhibiting for a time Joyce Heth as the nurse of Washington for $1,500 a week, he was enabled to establish Barnum's museum.

He secured Jenny Lind in 1849 to sing 150 nights in the United States for $1,000 a night; she sang 95 nights only, but the gross receipts were $712,161. All this was lost in a clock company. He recuperated in England showing Tom Thumb to Queen Victoria. Then his museum was burned; but from out the fire he soon appeared with "the greatest show on earth.” England was kind to him again; and being rich once more he published his Autobiography, and Humbugs of the World, and Lion Jack. And then he died, Paran Stevens and Alfred B. Darling, brought into association by the development of the Fifth Avenue hotel, were both at first poor boys and later hotel men, the former in Boston as keeper of the Revere house, and the latter as clerk in various hotels. Paran Stevens at one time controlled hotels in Boston, Philadelphia, and Mobile. He became interested in the Fifth Avenue hotel in 1858, and the hotel has been popular with noted people for half a century. He died in 1872, leaving large realty holdings in the metropolis.

There were giants in those days among the great newspapers, James Gordon Bennett of the Herald; Horace Greeley of the Tribune; Manton Marble of the World, and later Joseph Pulitzer with his several millions and house at Bar Harbor; Henry J. Raymond of the Times; Charles A. Dana of the Sun; David M. Stone, Journal of Commerce; William Cullen Bryant, Evening Post; Thurlow Weed, Commercial Advertiser; and James Brooks of the Evening Express. Thurlow Weed was worth $2,000,000; James Gordon Bennett the elder made three or four millions by his paper; the younger Bennett very many times more; indeed his income cannot fall far short of a million of dollars a year. The elder Bennett was a Scotchman, drawn to the United States by Franklin’s Autobiography. For some thirteen years he struggled with circumstances in New York, teaching school, writing, reporting, and trying to get a newspaper of his own successfully launched, which was accomplished in 1835, the New York Herald being then started as an independent one cent paper. Continued, and brought to the foremost state of efficiency and influence by James Gordon Bennett Jr., the wildest visions of the

father are immeasurably more than realized in the achievements of the son. Horace Greeley came from Amherst, New Hampshire, in 1831, working hard setting type and reporting for ten years, and starting the Tribune in 1841. He was always a liberal giver according to his means. The Evening Post was started by Alexander Hamilton, under the management of William Coleman, and at whose death in 1829 William Cullen Bryant came in as editor and part owner, which position he held for about half a century.

A fit temple to finance is the marble Clearing House of New York, said to rival the house of Diana of Ephesus, or any of the ancient temples of gods or goddesses dedicated to power or pleasure. Pilgrims to the western shrine of Mammon are the money magnates of America, bank presidents and bullion warehousemen, and all who love lucre and the handling thereof by the ship load. Every morning within a period of ten minutes $150,000,000 change hands. An armed guard watches the steel vaults containing the surplus millions night and day. The roof of the room where the bank presidents hold their meetings is overlaid with gold, and furnished with a throne for the president and massive armed chairs covered with leather for the members. There is a superbly finished and furnished library room with frescoed ceilings and walls of mahogany panels. Polished Sienna marble is conspicuous in the pilasters and window and door frames of the several rooms of the building.

The financial center and financial barometer of the United States is Wall Street, a narrow roadway one- fourth of a mile in length, in or near it being the United States sub-treasury, stock produce and other exchanges, and offices of the great banks, brokers, and railway steamship and other corporations. When the rush for California gold broke out, Wilson G. Hunt was a New York merchant in the line of woolen goods. With him was Henry Clews, who afterwards went into Wall Street and gained distinction by negotiating loans for the government during the civil war, in which business Jay Cooke was also engaged. To the heavy Wall Street operators of a half or quarter century ago, like Daniel Drew, Leonard W. Jerome, David Groesbeck, Jacob Little, Jay Cooke Fisk and Hatch, life was one continued gambling game; and it was a dull day for them when what would be a fortune to most men was not won or lost. Groesbeck was a quiet, methodical, and honorable man, and worth some $10,000,000, Jay Cooke made his millions as agent for the government 7-30 and 5-20 bonds. In his Fifth Avenue house August Belmont had a half-million dollar picture gallery. James Brown, linen draper from the north of Ireland, founded Brown Brothers and company, and was worth twelve or fifteen millions. James G. King’s sons though very wealthy were always without ostentation. George Law was one of the wealthiest men of his day, building High bridge for the Croton aqueduct, sending muskets to filibusters in Cuba, and coining into money the infelicities of passengers by his steamers to California.

Law's career is a striking example of what may be accomplished through energy and self-reliance, and without influence or other advantages. Starting out for himself at eighteen with $40, he worked as a quarryman and on canals, finally taking contracts for canal work himself. In six years he had amassed $3,000, and in another four years had increased the amount tenfold, while before another ten years had passed he was widely known as one of the wealthy men of the country.

Russell Sage, worth $100,000,000 made in stock speculations, is a man of ready money, keeping more cash on hand than anyone else in America. He was born in the Mohawk valley in 1816, where at first he worked on a farm, then in a store, then went into politics, and finally to Wall Street. He and Jay Gould assisted each other in times of emergency. James Fisk, once Gould’s partner, was a bold

dashing fellow, the reverse of Gould, who was of a quiet and retiring disposition. Fisk claims to have controlled more gold on the memorable Black Friday than ever the Rothschilds held, and had it not been for the president's founder interference he would have cleaned up thirty millions. Thurlow Weed was a printer with James Harper, of Harper and brothers, whence he went to conduct a country paper in the interests of DeWitt Clinton and the Erie Canal. Daniel Drew was engaged in steam boating on the Hudson during the fierce rivalry of Vanderbilt, George Law, and others, in the forties. Then he went into Harlem railroad and other stocks, and to plunging in Wall Street. All this time he was religious and charitable, his benefactions running largely to churches and schools. He gave his name and $1,000,000 to the Drew theological seminary at Madison, New Jersey, gave $100,000 to the Wesleyan University at Middletown, Connecticut, and $30,000 to St. Paul's, New York. James R. Keene came from California with a million or two, and undertook to apply San Francisco methods in Wall Street. Keene worked a tripartite game with Gould, Sage, and himself, coming out all right in the end, but only after great tribulation. The most of Joseph J. O' Donohue's fortune of $5,000,000 was made in coffee. John H. Starin, who was assisted in his beginning by the elder Cornelius Vanderbilt, spent his early life in the Mohawk valley, before starting out in the accumulation of his $20,000,000. John H. Inman came from Tennessee to New York, and was assisted in his earlier efforts by Richard T. Wilson, finally gathering in $8,000,000 after the war from southern railways and cotton.

Matthew Vassar migrated from England to America in 1796, became rich as a Pough-keepsie brewer, and founded in 1816 what is in some respects the finest college for women in the world. Mr. Vassar gave first $400,000 and 200 acres of land; afterward making large additions during his life, and at his death bequeathing $250,000 more. Matthew Vassar Jr., and John G. Vassar, nephew of the founder, have also given liberally. The main college building is of brick trimmed with blue freestone, 500 by 700 feet, with transverse wings. Peter Cooper had a varied life, first at hat ale and brick making; then coach maker and machinist; next grocer and glue maker; also oil, whiting, prepared chalk and isinglass,—all this in New York before 1828. He then bought 3,000 acres of land near Baltimore for $105,000, and erected ironworks, and there made from his own designs in 1830 the first railway locomotive in the United States. Iron works in New York followed, and their removal to New Jersey, and again to Pennsylvania, employing now 2,500 men. He was always an inventor, and at the end a philanthropist. The building of his Cooper Union—the union of science and art—cost him $634,000, to which other large sums were added for the carrying out of his benevolent purposes in connection therewith.

It was intended specially to benefit the laboring classes. After giving his first half million he had $150,000 left for his own wants, but habits of money making had become so much a part of his nature, that his fortune was regained almost before he knew it. The New York Academy of Science dates from 1876, although before then was a Lyceum of Natural History, incorporated in 1818, acquiring a library and specimens collection and herbarium, nearly all of which were burned. The Museum of Natural History in Central park has extensive and well filled cabinets. In 1828 was organized the Albany Institute, in 1861 the Buffalo Society of Natural History, in 1874 the Poughkeepsie Society of Natural History, and in 1881 the Rochester Academy of Natural Science; not to mention the many minor associations, like the American Chemical Society, established in New York in 1876, the herbarium of Columbia College, and the collections of Cornell. The donations of James B. Colegate to the Colegate University of Hamilton, New York, have reached the sum of $2,000,000, Asa Packer gave the Lehigh University $3,500,000; Paul Tulane, Tulane University

$2,500,000; William C. De Pauw, De Pauw University $1,500,000: Isaac Rich, Boston University $2,000,000; Leonard Case, School of Applied Sciences, Cleveland, Ohio, $1,200,000.

Among other useful benefactions of New York are an academy and home for shipbuilders established by W. H. Webb; a trade school founded by Richard T. Auchmuty; the Baron Hirsch fund trade schools; the Cooper Union night schools of science; the D. O. Mills training school for male nurses; the Marquand, and Sturgis pavilions and Townsend building, Bellevue hospital; Montefiore home; Vanderbilt Clinic; Randal Sailor's Snug Harbor; Palmer actors fund; Sloane maternity hospital; Isaac T. Hopper home; Leakc and Watts orphan house; the McAuley mission; the James H. Roosevelt hospital, founded with $1,000,000; the Ottendorfer home for old women, while also well known in charitable circles are other benefactions by Elbridge T. Gerry, Morris K . Jessup, John D. Archbold, R. E. Hopkins. James B. Colegate, John E. Andrus, J. J. McComb, Minturn, Norrie, Dubois, Osborne, Pratt, Morgan, Flagler, and a host of others. Jonas G. Clark founded in Worcester, Massachusetts, the Clark University, and gave to Hubbardston, his native town, a free public library building. Horatio Seymour was a man of large means, and though a lawyer never practiced; he was one of the best governors the north had. Charles O'Conor had an income of seventy or eighty thousand a year; James T. Brady not so much; the Tammany leader, Peter B. Sweeney, owned up to a million. Clergymen in those days like H. W. Beecher, E. H. Chapin, H. W. Bellows, William Adams, and O. B. Frothingham received salaries of $10,000 a year. John W. Draper, scientist and author, of the University of New York, was one whom all men might love and respect. He made many discoveries in science, was the first to photograph the human face, and was no whit behind Buckle in his philosophical writings. David Dudley Field, a Connecticut clergyman, was the father of four sons who gained distinction,—David Dudley Field, lawyer, of New York, and codifier of the laws; Cyrus W. Field, merchant, and one of the founders of ocean telegraphy; Stephen J. Field, judge of the United States Supreme court; and Henry M. Field, clergyman and author.

Ezra Cornell, of Quaker parentage, after youthful experience in the manufacture of pottery and machine making, became interested in the construction of telegraph lines, in due time laying the foundations of a fortune which found ultimate expression in lands. His first endowment of $500,000 to the university at Ithaca was afterward largely increased. Henry W. Sage gave liberally to this institution. Eugene Kelly, the rich banker, left large bequests to charitable institutions in New York. The Albany Institute for the Advancement of Science, founded in 1791, has a valuable library, and its transactions are widely circulated. Among the largest contributors to Princeton besides Mr. Green, were James Lenox, John I. Blair, the first to build a railroad in New Jersey, H. N. Halstead, William Libbey, the Marquands, Robert Homier, and R. L. and A. Stuart. Besides over $1,000,000 from Seth Low, Columbia College has had large gifts from J. Morgan, W. C. Schermerhorn, Cornelius Vanderbilt and Willis James. Thirty persons gave $5,000 or more each to the University of Rochester. Charles Contoit, in 1897, left $1,500,000 to charity, mostly Episcopal institutions in New York City. The Greens of Princeton have been very liberal to the college. Charles E. Green giving $1,500,000, and John C . Green founding the Lawrenceville preparatory school.

Manhattan Island has a water front available for vessels of about 25 miles, and from its piers and wharves are departures and arrivals to and from every nook and corner of the globe. The harbor defenses would be called good, but for the constantly new inventions of death-dealing implements.

Imports and exports are each about a thousand millions annually. All along the banks of the Hudson are picturesque towns and beautiful homes. At Poughkeepsie, besides Vassar College, and hundreds of elegant residences, are the St. Barnabas, Vassar brothers, and insane hospitals, and manufactories of iron, beer, glass, leather, pottery, and mowing machines. Erastus Corning was a merchant in Albany before the days of western railroads, in the building of which he took an active interest, projecting several roads and executing large contracts, particularly between Albany and Buffalo. Henry Farnum was another great railroad builder, his operations for the most part being further west. Silas Seymour aided in building the Erie Railroad, and then continued operations in the west. In like manner Sidney Dillon served an apprenticeship railway building in New York, acquiring distinction more particularly on the Union Pacific line. Of French Huguenot stock, Chauncey Depew's ancestors farmed the family acres at Peekskill, the present representative studying law and becoming a great orator and financier. Thomas A. Edison has taken out 400 patents, some of them in foreign countries as well as in the United States. Born in Ohio in 1847, he had no education except such as he obtained from his mother and learned himself. He picked up telegraphy at a railway station, all the time making chemical and other experiments, invented the printing telegraph, and erected large works at Menlo Park, New Jersey. Wonderful indeed are his discoveries in the directions of sound and electricity. Naturally his income and his wealth are very large. In New York the Edison Electric Illuminating company have buildings at Pearl and Elm streets, and on 26th street. The next great invention should be a motive power from concentrated solar heat, and it is understood that John Ericsson, who built the iron-clad monitors during the war, has spent some time on the construction of a solar engine. John Wanamaker was born in 1838; earned two cents a day turning 500 bricks for his father before going to school; walked four miles twice a day to earn $1.25 a week in a book store, eating a two-cent dinner; next $1.50 a week in a clothing store; published a paper, soliciting for the advertisements and subscriptions himself; became active in Sunday school work; engaged in the clothing business on the one-price principle, and got rich. He erected a large building, and added dry goods and everything else to his business. He founded various benevolent and educational institutions. Finally, he took in as a branch the A. T. Stewart establishment in New York, after a term at Washington as manager of the nations post offices.

When the era of trans-continental railroad building opened, with the civil war as a stimulant, Thomas C. Durant was engaged in grain transportation in Albany. In 1863 he aided in procuring subscriptions to the two millions of stock required by congress before beginning the Union Pacific, in the building of which he aided, and pocketed his millions. Great as are railroads, the days of canals have by no means passed away; they have hardly begun, that is to say, steamship or ocean-vessel canals, or other than the horse and tow-path navigation. Christopher Colles, in 1784 presented a proposal to the New York assembly to connect Lake Ontario with the Hudson River by canals. It is estimated that an interior waterway from New York to the Gulf of Mexico, such as has been contemplated, could be constructed for 380,000,000. A commission appointed by the president of the United States to report on a new deep waterway from Niagara River via Lake Ontario to New York harbor estimated the cost at $82,000,000. It was a great event, the celebrating of the wedding of the waters of the great lakes with those of the ocean on the completion in 1825 of the Erie Canal, the foundation of New York's commercial greatness. Guns were stationed at intervals the whole length of the canal, from Buffalo to Albany, and down the river to the bay. Upon the departure of the first flotilla of canal boats from Buffalo, a gun was fired, and upon the signal, and the next, and then the next, and so all along the line of canal and river, until in one hour and twenty-five minutes from the discharge of the first gun at

Buffalo was fired the last one at New York. Such was gunpowder telegraphy at the end of the first quarter of the 19th century. At Lockport the Erie Canal makes a descent of 66 feet and has ten massive locks to stay its waters, sufficient water power is here afforded to run many mills and factories, among which are lumber, flour, cotton, and woolen, besides foundries and machine shops.

Buffalo of late years has received an impetus in prosperity from the development of power for electrical purposes at Niagara Falls. Many railways center there, which with the Erie Canal and its position on the lake give it every commercial and industrial advantage. The business of elevating, storing, and transferring grain has here assumed large proportions, a score or so of these huge structures being controlled by an elevator association. Iron foundries and lumber are leading interests, and also the manufacture of boots and shoes, cigars, pianos, boats, scales, furniture, and carriages. The Holland Land Company founded the place, in 1801, where now stands one of the large cities of the commonwealth, with schools, libraries, churches, a fine art academy, historical society, and mechanics' institute. The power producing electrical plant is on a par with its stupendous surroundings, and able to deliver the current at New York on the one side and Cleveland on the other. The plant consists of an inlet canal a mile and a half above the American fall, with gates at the lower end, this canal being a reservoir into which the water backs, and having a capacity of 100,000 horse power. Pits into which the water falls from gateways descend from the canal, at the bottom of which turbine wheels are placed, and over which is the electrical powerhouse. A $3,500,000 canal is slowly penetrating its way under the Hudson. The Harlem Canal, as the enlargement of Spuyten Duyvil Creek is called, has proved a great aid to commerce in that quarter. A $75,000,000 canal project is to pierce the Florida peninsula. The Croton aqueduct is 38 miles long with a daily capacity of 100,000,000 gallons. At Pittsburg, in 1845, was built the suspension canal aqueduct, supported by two cables seven inches in diameter.

Some of the noted bridges in the United States, besides the Suspension bridge at Niagara Falls, and the Brooklyn Bridge, New York, are the Conemaugh, Carrollton, Kinyua, Starucca, Genesee, Wissahickon viaducts, the Stone street bridge, Philadelphia, the Schuylkill and Susquehanna bridges, and the Wenton, Pittsburg, Passaic, Raritan, Potomac, and Hudson River bridges. There are many magnificent bridges across the mid-continent rivers, the Ohio, Mississippi, Kentucky, Illinois, and Missouri, as the Cincinnati and Covington, the Quincy, Omaha, St. Paul, Minnehaha, St. Louis, Mandan, and others. The Brooklyn bridge, with the approaches on either side, is about a mile long; width 85 feet; four cables each 15 ½ inches in diameter; piers 280 feet high, 134 feet long by 56 feet wide at the water line; cost $15,000,000. It is the largest suspension bridge in the world, and was 13 years in building. Length of Niagara Falls bridge 800 feet; height of towers, 78 feet; width 24; height above river, 250 feet; 4 cables each 10 inches in diameter, containing 4,000 miles of wire.

While millionaires eat, the name of Delmonico will be famous. Father and four sons have become rich by attention to business; to that and nothing else. Their several restaurants are of worldwide repute, and the richest men and women of the metropolis are their guests. Time was when around a single table would sit eight or ten men and a wonderful thing it was if

"Every man there was a millionaire,"

and the dinner cost $25 a cover. Now, it is no uncommon affair, a banquet for fifty, in New York or Chicago or two hundred and fifty persons costing $10,000 to $25,000, the undulating tables, short, long, and horseshoe shape, strewed with rare flowers, and perhaps surrounding an artificial lake, in

which swim live swans, the variegated fountains of perfumed water mingling their harmony with exquisite music, while the dishes served by the royal director fresh from the precincts of the cuisine classique are most inspiring to the taste. As wealth increases, man's ingenuity is put to the test for the means of gratifying ever increasing demands for luxury and comfort.

Club-land in New York is not a centralized Pall Mall as in London, but scatters itself from Gramercy to Central park. Among the wealthy and prominent club men and merchants of forty years ago were Moses H. Grinnell, of the New York club; C. L. Tiffany, Eclectic; August Belmont, Jockey club; Marshall O. Roberts, Union League; Dean Richmond, Manhattan; H. B. Claflin, A. T. Stewart, dry goods, the former worth $12,000,000, and the latter $20,000,000; Robert B. Minturn, G. G. Howland, W. H. Aspinwall, Commodore Garrison, in California steamship lines; A. A. Low, in the China trade; E. S. Jaffray, worth $5,000,000; Jackson S. Schultz, $2,000,000; R. L. and A. Stuart, sugar refiners. Architecture and art are here hand in hand, at home in private and in public. The Metropolitan Museum of Art values the contents of a $1,000,000 building at $6,000,000. The residences and hotels of Fifth Avenue and vicinity are alike temples of art. Aside from the frescoes and other decorations the private galleries of the Asters, the Vanderbilts, Huntington, Gould, Mills, Morgan, Rockefeller, Hoe, Drexel, Jesup, Twombly, Webb, Shepard, Sloane, Kernochan, Hoffman, Marquand, Hilton, Stokes, and a hundred others, have not on the whole their equal in the world. Conspicuous also along other lines of pleasure or profit among the wealth and fashion of New York are Frederick Gebhard, John Bigelow, Stuyvesant Fish, William B. Dinsmore, Elbridge T. Gerry, J. Hooker Hamersley, Austin Corbin, James B. Ireland, W. B. Clyde, B. W. Silliman, H. B. Hyde, Duane Pell, James Abercrombie Burden Jr., William C. Schermerhorn, Amos R. Eno, George Ehret, James McCreery, Henry Hilton, J. Pierpont Morgan, Andrew Carnegie, H. Victor Newcomb, Adrian Iselin, Percy R. Pyne. Bradley Martin, Eugene Kelly, J. S. Kennedy, William Seward Webb, James M. Constable, Hicks Arnold, Anson Phelps Stokes, Levi P. Morton, S. D. Babcock, George F. Baker, A. S. Hewitt, H. H. Rogers, John D. Archbold, H. S. Day, C. M. Stuart, William H. Mairs, E. L. Winthrop, W. R. Grace, John Claflin, E. S. Clark, J. L. Mott, George T. Adee, David H. King Jr., William Watson, H. B. Bloomingdale, J. W. Dimmick, Jacob Ruppert, Peter Doelger, W. D. James, John W. Chanler, John R. Ford, I . V. Brokaw, A. B. Cox, A. J. Adams, W. E. Wendell, and H. T. Lawrence. The Goelet family in America was founded by the French Huguenot, Jean Goelet, in 1685, who married a daughter of the rich merchant John Cannon in 1697, a large fortune resulting. Peter, grandson of Jean, was the pivotal point on which the fortunes of the family turned, as it was he who bought and held Manhattan land. Peter Goelet's sister was mother of Elbridge T. Gerry. When he died in 1877, Peter Goelet's vast holdings passed to Ogden and Robert Goelet, both of whom have since died. Ogden Goelet married a daughter of R. T. Wilson, Robert Goelet a daughter of George H. Warren. The Goelet family have probably the largest landed interests in New York city next to the Astors.

The private railway cars of Vanderbilt, Gould, J. Pierpont Morgan, and W. Seward Webb, cost about $50,000 each, being as sumptuous as money can make them. Chauncey Depew’s car is as comfortable as any, though less elegant, as becomes a plain popular gentleman with a few substantial millions. Beautiful also beyond description are the yachts of the New York millionaires, dreams of floating felicity like W. K. Vanderbilts Valiant, John Jacob Astor's Nourmahal and Utopia, George J. Gould’s Atalanta, Archibald Watt's Golden Rod, E. C. Benedict's Omida, F. H. Benedict's Vision, Henry R. Walcott’s Shearwater, Eugene Higgins' Varuna, and A. J. Drexel's Margarita II.

The last and final flight of the aristocracy of Manhattan Island began at Washington square, taking a straight line along Fifth Avenue up past Central park to the farthest limit, blossoming now all round the parks and along the bank of the beautiful Hudson. Already Washington square has become old fashioned, and the lower end of Fifth Avenue has been turned into shops; but there is more than compensation for this in the miles of palaces at the upper end. As Broadway's ten miles of business houses has not its way equal in the world, so it is with regard to the five miles of millionaires' residences along Fifth Avenue. One of these miles can be marked off which contains twelve or more Washington square men worth a hundred millions each.

Confidence is the vital principle of commerce, and credit the palpable form and expression of confidence; therefore, rightly to gauge credit is one of the highest functions of business. For this purpose has been established the mercantile agency, by which means alone can be gathered and utilized the information necessary to establish individual responsibility throughout a large part of the civilized world.

The business of R. G. Dun and company occupies 150 branch offices, in this and other countries, including our new possessions, and finds employment for several thousand persons, with annual expenses of two million dollars, and having under revision over 1,300,000 business firms and individuals. It has been in existence over half a century. Since the commencement of the business in 1841, the system of obtaining information and communicating it by means of reports has been constantly improved, until the study and comprehension of this system as it exists at present is equivalent to a business education. To keep pace with the rapidly increasing commerce required energy and ability of the highest order, in gathering and distributing the requisite knowledge so as to reduce the risk of loss from giving credit to a minimum. Nothing proves more conclusively the value of the Mercantile Agency than that merchants are willing to contribute to its support several millions of dollars annually. Indeed, without its use, and no proper basis of credits could be reached, without credit business would be paralyzed. And not only has there been a constant effort made to increase the quantity of such knowledge of men and circumstances as should enable the merchant to transact his business with the greatest degree of safety, but the quality of such knowledge so furnished has been constantly improved. Thus the character and influence of this great arbiter of commercial destiny are constantly being elevated as well as expanded, until its importance and value as a factor in the affairs of men could only be realized by an attempt to do business without its aid.

Efforts have been made from time to time to substitute methods other than those instituted by Mr. R. G. Dun, the founder of the Dun Agency, but few of them have proved successful. So efficient and reliable have become the correspondents and trained employees of the Dun Agency, that it has now become recognized as the fundamental instrumentality of commerce. Institutions like this cannot be built up in a day; they are a matter of growth, new necessities and conditions ever evolving the requisite instrumentalities. Every traveler, reporter, correspondent, and agent must be endowed to the fullest extent with a personal responsibility, for even slight errors are apt to involve the distributors in serious complications. Some idea may be formed of the responsibility of the proprietors, as well as the expenses of the company, when we consider that the Dun Agency is in constant correspondence with over 100,000 persons engaged directly or indirectly in the service of the company. Accurate results from such extended efforts could be secured only by the most perfect system, to formulate which has been the work of Mr. Dun's life. A close relationship has ever been maintained between the agency and its subscribers, to the elevation and improvement of both. If the

rapid unfoldings of commerce throughout the world forced upon the agency expansion and the providing of facilities to meet the ever-increasing requirements of commerce, the agency on the other hand taught merchants many things,—how to do business and sustain fewer losses, how to give extended credits to the benefit of both seller and buyer, how to make men honest and truthful and keep them so.

Thirty years ago misrepresentation was a common fault with the buyer; now he dare not tell a lie regarding the condition of his affairs, and his claims for credit. Such is the monument which has been erected to the memory of Robert Graham Dun on the corner stone of the commerce of his country. Ohio is Mr. Dun's native state, having been born of Scotch parentage at Chillicothe in 1826. After an academic education, he entered a business house at a salary of two dollars a week, but moved to New York in 1850 and began his remarkable career in the creation, in some respects, and developing of the mercantile agency business.

Mr. Dun is ably assisted in the management of his affairs by his nephew and associate partner Robert Dun Douglass who has had an active experience of twenty-five years in the agency business with Mr. Dun.

John D. Rockefeller, with a fortune approaching $200,000,000, is the principal owner of the Standard Oil Company, and the richest man in America. He and his brother William, who is not far behind in the matter of wealth, were born in western New York, and did not acquire distinction before the period of the great oil discoveries of Pennsylvania. John D. Rockefeller has three daughters: Bessie, who married Professor Charles Strong of the Chicago University; Alta, and Edith; and one son, John D. Rockefeller, Jr., who will each inherit some $50,000,000. The family are all plain in their tastes and habits, and devoted to their several charities. Mr. Rockefeller has given largely to the Baptist church societies, and to the Chicago University, his benefactions amounting to many millions.

A. T. Stewart came to America in 1818, and opened a small stock of dry goods on Broadway, and his business in time assumed mammoth proportions. He was a strict disciplinarian and dealt exclusively for cash. Many were his millions, with his marble palace on Fifth Avenue, and a garden city domain eight by four miles in dimensions.

Eminent like his father John W. Draper, and author of several important scientific works, was Henry Draper, born in Virginia, in 1837, his brilliant career terminating by death in 1882. His life was one of usefulness, spent in the midst of advanced scientific thought, to which he gave as much as he received. From the first Mrs. Draper took great interest in her husband's investigations, which were primarily photographic, first on the diffraction spectrum of the sun; second, the stellar spectra; third, oxygen in the sun; and fourth, the spectra of the elements. Henry Draper was professor of natural science in the University of New York from 1860, and professor of physiology in the medical department of the university from 1866 to 1873. He was also surgeon of the 12th regiment New York state militia, and occupied many other high positions of trust and merit. Says Professor Young, of Princeton, of Doctor Draper, "He was affectionate, noble, just, and generous; a friend most kind, sympathetic, and helpful; a lover of art and music, and in the pursuit of science able, indefatigable, indomitable."

Courtlandt Palmer was descended in a direct line from Walter Palmer, who came to this country with Higginson in 1629. Walter Palmer owned a share in the land patent granted by King Charles I. He built the first house in what is now Charlestown Massachusetts; from there he went to Rhode Island,

and finally, purchased from Governor Haynes a tract of land where the town of Stonington now stands. There Courtlandt Palmer was born in 1800. After his father's death he resigned, to his sisters his, interest in the family property reserving for himself $100. With this capital he came to New York at the age of eighteen years, to seek his fortune. Having acquired an independent property, he retired from active business in 1837 and from that time, until his death in 1874, devoted himself to matters of public interest. He was identified with the early railroad projects of the country, and was one of the incorporators of the Stonington Providence and Boston railroad, of which he was the first president. This road was at the time connected with New York by a steamboat line. Mr. Palmer was one of the originators of the idea of a safe deposit company, and a trustee of the first one that was established. Like all new projects, these institutions, which have become so useful, met with great opposition, and the first one was organized with much difficulty.

In the person of William Steinway is represented one of the world's greatest industrial successes, built upon the genius of the founder, and reaching within the span of a single life properties to the value of $6,000,000. Henry E. Steinway, piano maker in Brunswick, Germany, was 53 years of age when in 1850 he came to New York and with his three sons began the manufacture of pianos in Varick Street, in 1853, which in 1897 was sold to a London syndicate for $6,000,000. Chief among the sons were Henry Steinway, who added to the instrument several important improvements and inventions, and William Steinway, upon whom finally rested the entire management and financial responsibility of the house. Wealth rolled in upon him at home and royal honors abroad, the crowned heads of England, Germany, Spain, and Italy showering upon him titles and diplomas. Mr. Steinway has ever been conspicuous for his kind and generous qualities, his charities extending far and wide, and being a fine public speaker, as well as a rare musical genius, and liberal in contributing toward the advancement of the right and the suppression of wrong, he has ever been an important factor in politics.

Moses Taylor was a very wealthy man, beginning with nothing, like so many, and becoming a great banker and builder of railways and steamships. So with Marshall O. Roberts, who began his career in New York in 1833, as a ship chandler, and ended with ten millions, when millions were half as plentiful and of twice the value of today. He was an art connoisseur, fond of fine paintings, and was pious and charitable. His down town associates were such men as the Wetmores, the lobbyist Sloo, who obtained the California steamship subsidy. George Law, and Aspinwall while neighbors of his Fifth Avenue palace were Belmont, then rated at fifteen millions, Mason and Burnham, each three millions, and Taylor, forty millions.

The Van Nest family was of Holland origin, several generations later living in New Jersey. Alexander Thompson Van Nest, who died in 1896, at Langenschwalbach, Germany, who was born in New York City, in 1844. His father, Abraham Rynier Van Nest, endowed with and noted for a keen sense of honor and justice, left him the heritage of those sterling qualities which give confidence to, and draw admiration from the business world. After preparatory schooling the son entered Williams, but finished at Princeton, from which college he was graduated in the class of 1864. At one time he contemplated a course of study at Rutgers, doubtless drawn thereto by the fact that several of his relatives were among the alumni, and that one of the college buildings was a gift from his real uncle and was known by the family name. Though Princeton became his choice, Rutgers always held a warm place in his heart, and in recent years his trusteeship of the latter institution was a pride and satisfaction to him. His charities were of that better sort that avoid publicity but reach the beneficiary

in the most direct way. No one seeking his counsel ever failed to receive consideration. He had a special talent for unraveling the intricacies of railroad accounts, and for estimating the limitations and probabilities of traffic, and this bent of mind made his services of great value upon reorganization committees. He was a director in many prominent railway companies, as the Delaware Lackawanna and Western, the Chicago Rock Island and Pacific, and the Norfolk and Southern. He was a director in the Bowery Savings bank, and was a Loan and Trust the Corn Exchange bank, and was a member of the executive committee of the Farmers company of New York. Many a man, whose life work shows a series of sacrifices, fails to live for a lengthened time in the memory of those who have profited by his efforts, the Sturm and Drang of the hurrying world soon obliterating all traces of his existence; but Mr. Van Nest's labors were so deeply, though unostentatiously graven upon the records of important financial institutions that his influence will long be felt, and his name respected. He was married March 26th, 1873, to Margaret, daughter of Robert Lenox Taylor, who, with a daughter, survives him. He was a member of the St. Nicholas Society and the Holland Society. Taking a great interest in the latter he performed very much, if not all, of the work in connection with the selection of historic sites, in this city, and the placing of tablets to mark them. Robert Bonner came from Ireland and achieved wealth and fortune in the publication of the New York Ledger, and paying high prices for fast horses which he would not race for money. Dexter, Rarus, and Maud S. ruled the turf in their day, while their owner enjoyed life at his elegant country home in Morrisania, or at his city residence, or at the office of his Ledger, all made by paying writers a higher price per column than had ever before been heard of, and letting all the world know it. Among the first to receive what was then an unusual figure for literary work was Fanny Fern, engaged by Robert Bonner in 1855 to write a continued story at $100 a column. Other contributors were Mrs. Sigourney, Edward Everett, Henry Ward Beecher, Horace Greeley, John G. Saxe, James Parton, Sylvanus Cobb. Jr., Dr John Hall and Mrs. Southworth.

Among the gigantic developments of the last half century is that of the iron industry in the United States. Two names may be mentioned in this connection which will stand for all, those of Andrew Carnegie and Henry C Frick. The beginning was in 1864, the Cyclops Iron company being organized in that year with a capital of $100,000. Then followed, with a gradual increase of capital, the Keystone Bridge company and the Union Iron Mills in 1865; Carnegie, Kloman and company in 1870; Carnegie and company in 1871, until finally, in 1892, the Carnegie Steel company, limited, blossomed out with a capital of $25,000,000, The organizers were Andrew Carnegie, Henry Phipps, junior, Henry C. Frick, George Lauder, William H. Singer, Henry M. Curry, Henry W. Borntraeger, John G. A. Leishman, William L. Abbott, Otis H. Childs, John W. Vandevort, Charles L. Strobel, Francis T. F. Lovejoy, Patrick R. Dillon, William W. Blackburn, William P. Palmer, Lawrence C. Phipps, Alexander R. Peacock, J. Ogden Hoffman, John C. Fleming, James H. Simpson and Henry P. Bope. Thus it will be seen that this business has not been in any sense a combination of competitors, but a matter of growth. Although the company has investments in other parts of the country, for the better obtaining of its supplies of raw materials, yet its finishing mills are all situated in or in the immediate vicinity of Pittsburg, where, in the Carnegie building, its general offices are established. It has also its own offices in Boston, New York, Philadelphia, Washington, Montreal, Buffalo, Cleveland, Detroit, Chicago, Minneapolis, Cincinnati, Atlanta, St. Louis, Denver, San Francisco, Mexico City, and London, with sales agents in every country on the globe.

Henry C. Frick was elected as a partner in Carnegie Brothers and Company, limited, in 1886, and elected chairman in 1888. This office he held until the reorganization of the Carnegie Eterprises, in 1892, when he became chairman of the board of managers of the Carnegie Steel Company, limited.

Allied to iron are coal and coke. As the Connellsville coke region is the greatest coke region in the world, so is the H. C. Frick Coke Company the greatest coke producing firm in the world. This company owns and controls the output of two-thirds the ovens in the region, and sells three-fourths of the coke that enters the market. The annual capacity of the plants owned and controlled by it reaches the enormous aggregate of 500,000 cars, or about 9,000,000 tons. Its coal supply is entirely commensurate with its immense manufacturing capacity. Out of about 60,000 acres of available Connellsville coal remaining in the region, this company owns about 45,000. Among the first in the field and early impressed with the destiny of the region, it was the policy of the company to enlarge its holdings as fast as possible, and especially its coal and land holdings, hence the kingly acreage it has acquired. It is also a matter worthy of mention that this coal lies for the most part in the very heart of the region, in or near what is technically known as the basin, hence the superior quality of the Frick coke, which has a name for excellence in every market.

The H. C. Frick Coke Company is the oldest and by far the largest company doing business in the Connellsville coke region. Being first to enter the field, it easily acquired possession of the richest coal lands, taking at the same time care to get control of lands through which flowed the purest and most important streams of water. As the firm was progressive its early advantages were not allowed to lie dormant, but were developed to the fullest fruition.

Henry Clay Frick, the head of this company, was its founder. As early as 1871, when a mere youth, Mr. Frick with that foresight which has characterized his whole business career became convinced that Connellsville coal made the best coke in the world and that the future of the business was in its puling infancy. For many years he gave his entire attention and time to the development of the region and the extension of his holdings. He builded broad and deep and he builded well.

Samuel Verplanck Hoffman was the direct lineal descendant of Martinus Hoffman, who immigrated to America from Holland in 1620. The Hoffman family had been distinguished in Europe during the sixteenth century in the learned professions, and Martinus made his mark as soon as he came to America. The records of New Amsterdam show that he was a large taxpayer and one of the principal inhabitants of that city in 1660. Removing to Ulster County, he became a leader among the people, and he and his descendants raised and commanded companies of militia, at first under the Colonial Government, and later on the side of the Revolution. They were justices of the peace, owned large numbers of slaves, and were persons of great property and influence.

Samuel Verplanck Hoffman, who was born at Red Hook, N. Y., in 1802, was a lawyer, practicing at the bar for a few years. He retired in 1828, and established the celebrated dry-goods commission house of Hoffman and Waldo; he was also a director in more than one insurance company. A member of the Union League club, he yet took no active part in politics. He was eminently philanthropic, an energetic trustee of several charitable institutions, and a devout churchman, being vestryman of Trinity church, New York, and warden of Christ church. He married Glorvina Rossell New Brunswick, where he owned a country seat, daughter of Garrit Storm, and died in 1880, leaving two sons, both of whom are clergymen of the Episcopal church, the Very Rev. Eugene A. Hoffman, D.D., Hoffman,

D.D., D. C. L., Dean of the General Theological seminary, and the Rev. Charles F. LL.D., rector of All Angels' church, New York, which he rebuilt at his own cost in 1890.

Eugene Augustus Hoffman, eldest son of Samuel V. Hoffman, was born in New York March 21, 1829. He was educated at Columbia Grammar school and at Rutgers and Harvard colleges, obtaining from the latter university the degrees of B. A. and M. A. He received his training for the ministry in the General Theological seminary, and was ordered deacon in 1851. After two years of mission work, he was elected rector of Christ Church, Elizabeth, N. J., where he continued ten years. During his rectorship a handsome stone church, a parish schoolhouse and rectory were built, and two successful parish schools, one for girls and a classical one for boys, were organized. Whilst rector he established Christ Church as a free church; organized the parish of Milburn, seven miles distant, and built a church there; revived the congregation of Woodbridge and caused a church to be built for their accommodation; and interested himself in securing means to free from debt the church of St. James, Hackettstown, N. J. In 1863, at the earnest solicitation of the bishop, he accepted the rectorship of St. Mary's church, Burlington, N. J., where, with his characteristic energy, he succeeded in wiping off a debt of $23,000, and raising money to place a peal of bells in the tower and endow a bell-ringers' fund.

In 1864 he was appointed rector of Grace church. Brooklyn Heights, but after a successful rectorship of five years, he was obliged to resign in consequence of ill-health. He then accepted the rectorship of St. Mark's church. Philadelphia, where he remained for ten years, during which time the temporal and spiritual welfare of the parish was very marked.

In 1879 he was elected to the eminent position he now so honorably fills. For years the seminary had been languishing for lack of funds, and it was felt that only a man of great earnestness and energy could raise it to the position it ought to occupy. The choice made of Dean Hoffman has been amply justified. By his devotion and ability he has reared an enduring monument to the glory of God and the welfare of the church. In the seventeen years since his appointment a million and a half dollars have been secured to the seminary through his efforts and the munificence of his family. Chelsea square, occupied in 1879 only by two old stone houses, has been beautified and improved, and is now more than half covered with a magnificent pile of buildings, forming the east quadrangle, and presenting an imposing front on Ninth Avenue and Twenty-First Street. These buildings include a spacious deanery, houses for five professors, students' dormitories, library, lecture halls, and a beautiful chapel, erected by the mother of the dean as a memorial to her husband, Samuel V. Hoffman. During Dean Hoffman's tenure of office also two new professorships have been established and three professorships have been amply endowed by himself and his family, as has also the office of dean, the income of which is now accumulating for the benefit of the seminary; while scholarships, fellowships, and the "Bishop Paddock Lectureship" have been founded.

Dean Hoffman is a valuable and energetic trustee of the principal charities and church organizations of New York. He is also a member of most of the scientific and learned societies of the city, and has been honored by degrees from many of the colleges and universities of the United States and Canada.

Possessing great executive ability, he has faithfully, conscientiously and successfully discharged the duties that have fallen to him in his various spheres. Succeeding by inheritance to a large estate, he has administered it himself wisely and well. The General Theological seminary is perhaps the object

nearest his heart, but he gives largely, though unostentatiously, to many public objects, and his hand is ever open to relieve genuine distress with practical help and kindly sympathy.

He married in 1852 Mary Crooke Elmendorf, and has living three daughters and one son, all of whom are married.

Rev Charles F. Hoffman, brother of Dean Hoffman, was also prominent in educational and religious work. Besides rebuilding All Angels' church, he contributed largely to St. Stephen's College, likewise erecting a library building for the Porter Institute at Charleston, and Hoffman Hall, Nashville, for the theological education of Negroes. Dr Hoffman also built the Hoffman wing of the Negro orphan asylum, Lynchburg, and many other like benefactions, besides making numerous and important contributions to the religious literature of the day.

The Rhinelander family are large owners of real estate. William Rhinelander died in 1825 leaving city lands entailed, so that a very large property goes to the heirs of William C. Rhinelander, who died in 1878. Extensive holdings have been in the family for over a century, covering many acres in the heart of the city.

The closing years of the nineteenth century will doubtless be referred to in the future as the period when the movement towards industrial consolidation in the United States reached its zenith. A pioneer in the movement and one of the most successful organizers of his time is Charles K. Flint. Descended from Thomas Flint, who emigrated from Wales in 1642 and settled in Salem, Mass., his father, Benjamin, became a ship-owner and took up his residence in Brooklyn in 1858. His son, Charles Ranlett, was born January 24, 1850, and was educated first at the public schools of Thomaston, Me., and Brooklyn, N. Y., and at the private school of Warren Johnson, of Topsham, Me., graduating in 1868 from the Polytechnic Institute of Brooklyn.

Beginning his business career in New York City as a dock clerk he later spent two years as a clerk in a shipping and commission house engaged in business with the west coast of South America. In 1871 he entered the copartnership of Gilchrist, Flint & Co., ship-chandlers, and in February, 1872, united with William R. Grace in forming the firm of W. R. Grace & Co. In 1874 he visited the different countries of South America, and two years later organized the firm of Grace Brothers & Co., in Callao, Peru. He remained on the west coast nearly a year, and on his return was appointed consul of Chile at New York, and during the absence of the Charge d'Affaires was entrusted with the archives and correspondence of the Chilean Legation in the United States. He held this position until the Chilean republic declared war against Peru in April, 1879, when, owing to the relations of his firm to the Peruvian government as financial agents, he resigned and placed the affairs of the legation and the consulate in other hands. Subsequently he was appointed consul of Nicaragua in New York and represented Nicaragua in negotiations with the parties who are now the concessionaires of the Nicaragua Canal. Later he was also consul-general of Costa Rica.

Foreseeing that the inevitable trend of business was toward consolidation, Mr. Flint in 1878 organized a consolidation of several lumber companies under the name of the Export Lumber Company, Limited, one of the most successful lumber concerns in the United States, with yards in Ottawa, Montreal, Boston, Portland, Me., and New York (Greenpoint), and handling over 200,000,000 feet of lumber per year. The Export Lumber Company is also the selling agent for the Atlantic Coast Lumber Company, the greatest producer of North Carolina pine.

In 1881 he endeavored to bring about a consolidation of electric light companies, including the Edison, the Brush, the United States, Thomson-Houston, the Jablokoff, and Weston Electric Light Company, and would probably have succeeded had he not been a party in interest, as president of the United States Electric Light Company, of which Henry B. Hyde, Marcellus Hartley, and Anson Phelps Stokes were vice-presidents.

Shortly after this experience he took up the crude rubber industry and consolidated the four leading factors in that business. Three years later he visited Brazil and spent some time on the Amazon, acquiring a thorough knowledge of the details of the rubber business and establishing houses there. Since that time organizations with which Mr. Flint has been identified have handled crude rubber to the value of over $250,000,000.

In 1885 he became a partner in the house of Flint & Co., with his father, Benjamin, and his brother, Wallace B., dealing principally in the exporting of American manufactures to South Africa, Australia, and the Latin-American states, also importing wool, hides, and skins from the Argentine Republic and Uruguay.

In 1891 he became interested in the consolidation of the manufacturers of rubber boots and shoes, and a year later organized the United States Rubber Company, which has a capital of $47,191,500. Those who invested in this consolidation in 1892, and who have kept their holdings, have received over $8,500 per annum on an investment of $100,000, and can sell at a profit of over $20,000.

In 1892, after having successfully launched the United States Rubber Company he turned his attention to manufacturers of rubber goods, other than boots and shoes, and brought about a union of five companies, manufacturing belting, packing, hose, clothing, and druggists' sundries, under the title of the Mechanical Rubber Company. Subsequently, in the spring of 1899, the Mechanical Rubber Company became a part of the Rubber Goods Manufacturing Company, which he also organized, the new company taking over the business of the principal manufacturers of belting, packing, hose, mats, interlocking tiling, tires for bicycles, carriages, and automobiles, and paying handsome dividends.

With a view to extending his facilities for the handling of the rapidly growing export business of the country, he organized in 1895 Flint, Eddy & Co., taking in the Coombs, Crosby & Eddy Company. During the succeeding five years, this concern extended its connections with American manufacturers and developed its business to such an extent that in 1900 it further enlarged its organization by amalgamating with the largest mercantile company doing business in the Orient. The new concern, under the style of Flint, Eddy & American Trading Co., with its head office in New York, became the largest buyers in the country of general manufactured goods for export, shipping to South Africa, Australia, New Zealand, the Philippines, China and Japan, the West Indies and all the Latin-American countries. It also imports a large quantity of raw material from Mexico, South America and the East.

In the summer of 1899 he brought about the with a organization of the American Chicle Company, with a capital of $3,000,000 preferred stock and $6,000,000 common stock, which, at the end of six months, paid from its earnings a semi-annual dividend of three percent on its preferred shares, four percent on its common shares, and deposited in the bank sufficient funds to cover all of its indebtedness and the dividend on the preferred stock for the following six months. The organization of the Sloss-Sheffield Steel and Iron Company followed with a capital of $20,000,000, the success of which showed the versatility of the man who could grasp the vital features of the iron and steel

business as well as those of chewing gum, crude rubber, rubber manufacture, lumber, export and import.

Said Mr. Flint in an address to the leading bankers of Boston on “Industrial Consolidations:" "If I am asked what are the advantages of larger aggregations of capital and ability, the answer is only difficult because the list is so long. The grand result is a much lower market price, which accrues to the benefit of the consumers, both at home and abroad, and brings within reach, at the cheaper price, classes and qualities of goods which would otherwise be unattainable by them. This is the great ultimate advantage, and if this were not sooner or later true, if the world at large did not ultimately reap the benefit, the other advantages would be as nothing.

“I say unhesitatingly that the only way in which the United States can extend and hold its position in the world's markets for manufactured goods is by securing the advantages of highly developed special machinery, which is only possible through centralized manufacture and aggregated capital. Subsidy seekers claim that "trade follows the flag; merchants know that trade follows the price, and the flag follows the trade."

Mr. Flint was a delegate of the United States to the International American conference, 1889-1890, at which all of the American republics were represented, and to which he was appointed by President Harrison owing to his knowledge of the resources and conditions of the South American countries and his intimate acquaintance with Latin American trade.

As a representative of the United States on the committee on banking, he proposed, in order to facilitate inter-American trade, the establishment of an International American bank with its headquarters in the United States and branches in all the other republics. His recommendations were ratified by the conference, endorsed by Secretary Blaine, and President Harrison, in two messages, urged action by congress. A bill providing for the incorporation of the International American bank was introduced in congress, and reported unanimously by the committee on banking and currency. As a member of the committee on customs regulations, he proposed the organization of a bureau of American republics to carry out the vote of the conference in favor of a uniform system of obtaining statistics and the extension of trade between the republics. This proposition has been carried out by the governments represented in the conference.

After the adjournment of the conference and at the request of Secretary Blaine, Mr. Flint was the confidential agent of the United States in negotiating the first treaty of reciprocity under the Aldrich amendment; that with Brazil. It provided for a concession in tariff duties on products received by Brazil from the United States. This treaty was the key to the reciprocity situation, for it became at once the basis of other treaties with American republics and proved of especial value in the negotiations with Spain. At the time of the strained relations in 1890 between Chile and the United States, growing out of the Baltimore incident, the large influence of Mr. Flint led Secretary Blaine to invite him to take part in the efforts for a friendly and peaceful adjustment of the question at issue, and in this connection he rendered the government important service.

When the Brazilian navy revolted in September, 1893, President Peixoto entrusted Mr. Flint with the obtaining of a new navy. With remarkable energy he purchased Ericsson’s Destroyer, and the swift yachts Feiseen and Javelin were promptly converted into torpedo boats. A Yarrow torpedo boat was brought over from London. El Cid, a steel merchant steamer of 6,000 tons' displacement, the latest

built and fastest of the Morgan liners, came into the port of New York, October 26, 1893. with a full cargo. On November 18th, twenty-three days thereafter, christened anew as the Nictheroy, she dropped down the bay transformed into a cruiser, with a pneumatic gun, capable of firing shells containing from 100 to 500 pounds of dynamite; twenty-two Hotchkiss rapid-fire guns and four torpedo launching tubes, and three torpedo boats fully equipped with torpedo tubes and rapid-firing guns on deck. The Britannia, an iron steamer of 2,600 tons displacement, came into the port of New York November 6th, went into dry dock, was fitted with sixteen rapid-fire guns and four torpedo launching tubes and a Sims-Edison dirigible torpedo, and, renamed the America, was ready for her voyage on November 24th. This fleet, capable of discharging 4,500 tons of dynamite simultaneously, and whose division officers were all graduates of Annapolis, prevented the secession of the northern provinces of Brazil, and thus prevented the restoration of the monarchy.

In 1894, and during the progress of the China-Japan war, Mr. Flint, acting as the agent of the government of Japan, purchased the Esmeralda, the crack cruiser of the Chilean navy, built by the Armstrongs, and delivered her to Japan, this being the only instance on record where an important vessel of war has been sold to a nation actually engaged in hostilities.

In the spring of 1898, both before and during the war with Spain, Mr. Flint rendered valuable services to the United States government in the purchase of vessels and munitions of war. Through his agents all over the world he kept in touch with negotiations which had been commenced by the agents of the Spanish government, and through the information thus obtained he blocked, in several instances, the attempts of the Spaniards to purchase foreign war vessels and supplies. He gave the United States government the first information of the sailing of the Spanish fleet from Cape Verde, and also, twelve hours later, the direction in which the fleet was steaming. He also advised the government of the sailing of colliers to a rendezvous with the Spanish fleet off the north coast of Venezuela, and arranged the purchase from Brazil of the cruiser Nictheroy which he himself had delivered to Brazil five years previous.

The Secretary of the Navy, in a letter of date June 4, 1900, recognized the valuable services of Mr. Flint, saying: "In this connection, also, will you let me refer to the services which, just before the war began and afterwards during its progress, you so kindly gave to the department, without compensation or reimbursement, in reference to other negotiations in connection with its efforts to procure ships and armament abroad. In view of your large experience and extended business facilities the department very highly appreciates your patriotic action and your generous cooperation, and takes this opportunity to formally tender to you its hearty thanks."

Mr. Flint has proven a useful associate in the management of financial and other institutions in New York City, and is a director of the National Bank of the Republic, the Produce Exchange bank, the Knickerbocker Trust company, the National Surety Company, the American Ordnance Company, the Audit Company of New York, Hastings Pavement Company, and the Manaos Railway company.

He is interested in the cause of higher education, and is a member of the council of the University of the City of New York and was one of the founders of University Heights.

In addition to his other interests he was chairman of the reorganization committee which consolidated the streetcar lines of Syracuse, N. Y., being associated in this matter with A. N. Brady and R. C. Pruyn, of Albany. He also organized the Manaos Railway Company, which built and is now

operating a trolley line in the city of Manaosl, Brazil, one thousand miles up the river Amazon, where he also installed an electric light plant. He is president of the Georgetown and Western Railroad Company, operating in North Carolina.

Despite the magnitude of his business interests, Mr. Flint still finds time for recreation and is a member, of many shooting clubs. He is fond of yachting, and was the owner of the sloop Gracie, a noted prize winner. He was also one of the patriotic syndicate which built and raced the Vigilant, which successfully defended the America's cup against the Valkyrie, and is building a 130-foot steam yacht which will be named Arrow, and which will have a speed of at least thirty knots an hour, and is capable of being transformed into a torpedo boat in one week. He is a member of several clubs, including the Union, Century, Riding, Metropolitan, New York Yacht Club, and the New England Society.

In 1883 Mr. Flint married Miss E. Kate Simmons, daughter of Joseph F. Simmons, of Troy, widely known for her philanthropy and musical talents. She has devoted the receipts from her musical composition to charity, and from the sale of a “morceau" alone, the Racquet Galop, endowed a bed in St. Luke's hospital.

Industrial Insurance, a system by which wage-earners are placed on a level with people of wealth in securing life insurance protection, was introduced to this country by John Fairfield Dryden, president of the Prudential Insurance Company of America, who has thereby conferred an inestimable boon upon more than eight millions of policy holders. Mr. Dryden is a native of Maine, born near Farmingham in 1839, and entering Yale College in 1861. His attention having been directed to life insurance, he became deeply interested in the subject and was led on to make an exhaustive study of its principles, particularly of Industrial Insurance in England, as reported by the late Elizur Wright to the Massachusetts legislature. Mr. Wright doubted if such a system could be successfully operated in America. After giving the matter much thoughtful study, Mr. Dryden became convinced that a system of Industrial Insurance could be devised that would meet the wants and conditions of the American people, and that to originate and apply such a plan should be his life purpose. To his honor, and to the lasting benefit of the American people, be it said, he succeeded. First lie interested in his efforts a number of progressive and wealthy men, and with their cooperation as associates he procured a charter from the legislature of New Jersey. Then, on the 13th of October, 1875, the doors of the Prudential Insurance Company of America were thrown open, and rich and poor alike were invited to participate in its benefits. From that day the success of the enterprise and of the institution has been marked and continuous, until the amount covered by insurance aggregates the enormous sum of one billion of dollars, while over a hundred millions have been paid to policy holders.

Alfred Sully, railroad builder, was born at Ottawa, Canada, in 1841, the family moving to the United States two years later. Mr. Sully's first connection with railroads was as counsel of the Davenport and St. Paul. Afterwards he became vice-president and principal owner of the Indiana, Bloomington and Western, then a bankrupt road 200 miles in length. Within two years Mr. Sully and his associates had built 140 miles of additional track and had leased the Cincinnati, Sandusky and Cleveland railroad, creating a system of 570 miles, afterwards selling the entire property to the Big Four.

Mr. Sully personally constructed the railroad from Peoria to the Mississippi river at Keithsburg and from Keithsburg to Oskaloosa Iowa; also a line from Newton, Iowa, to New Sharon, Iowa, the three lines aggregating over 200 miles which he subsequently sold to the Iowa Central Railway company.

He was one of the builders of the Manhattan Beach railroad and of the Manhattan Beach improvements. Mr. Sully organized the Eastern Railroad of Long Island. with a view to an extension of the Manhattan Beach railroad, but subsequently purchased control of the entire Long Island system in connection with Austin Corbin, paying therefore $1,300,000. At that time, the road was in the hands of a receiver and its stock selling at twenty cents. Mr. Sully and his associate placed a new $5,000,000 mortgage upon the property, consolidated the subsidiary lines on Long Island, increased the stock from $3,000,000 to $10,000,000 and placed the road on a dividend paying basis.

In 1881, Mr. Sully purchased an incomplete railroad in Ohio, extended it and reorganized it as the Ohio Southern railroad and remained president of the road for over ten years when control was purchased by others.

In 1885, he became the largest individual owner of the stock and bonds of the Philadelphia and Reading Railroad Company, one of the largest corporate aggregations of actual money investment in the world. After a bitter contest of some two years between opposing interests, Mr. Sully negotiated a compromise upon conditions which were acceptable to all.

For nine years Mr. Sully was vice-president of the New York, Susquehanna and Western Railway company, assisting largely in building up that property. In 1886 Mr. Sully's ability as an organizer was again demonstrated. At that time the Richmond and West Point Terminal Railway and Warehouse Company was in debt over $3,000,000 and the stockholders were notified that the property must be sold for its debt. The company had a capital of $15,000,000 and owned several southern railways. A committee of the stockholders had worked for over a year to reestablish the property, without success. Mr. Sully was induced to become chairman of the committee and within a few months the Terminal Company was reestablished in credit, its entire debt paid, and it had purchased additional Richmond and Danville lines, thus making it the greatest railroad power in the south, owning and operating over 4,700 miles of railroad, Mr. Sully becoming president of the Richmond and West Point Terminal company and also of the Richmond and Danville Railroad company.

In 1889, Mr. Sully retired from business, although he is still connected as director and large owner with important railroad properties.

The world has probably never before seen any such aggregation of business talent as New York contains today. Particularly is this the case in the direction of finance and manufactures, the prestige having been drawn away from England to the United States in both instances. Therefore when we see a man, for example, like William Seward Webb, who stands at the front of New York finance, and is also successful as a manufacturing manager, we may be able to form some idea of his ability and position before the world.

Mr. Webb is also prominent as a social and political leader, with a line of distinguished ancestry of whom an American cannot fail to be proud. Richard Webb came from Gloucester, England, and settled in Boston in 1632. His descendants took an active interest in the revolutionary war and the organization of the republic. Samuel B. Webb was private secretary and aide-de-camp to General Washington. James Watson Webb, son of Samuel B. Webb and father of William Seward Webb, was also distinguished as a journalist, soldier and diplomat. While yet a boy, William Seward Webb accompanied his father on a diplomatic mission to Brazil. On his return he attended the Sing Sing military school and Columbia College, continuing the study of medicine abroad at London, Vienna,

and Paris. Graduating at the New York medical college, he at once became prominent in New York society, and in 1881 married Lila Osgood Vanderbilt, daughter of William H. Vanderbilt. He is a member of ten of the most prominent New York clubs, and aide-de-camp and colonel on the staff of the governor of Vermont, and was elected to the Vermont legislature in 1896. He takes much interest in horse-breeding, his large stud-farm at Shelburne, Vermont, having a world-wide repute.

For several years Doctor Webb was engaged in the business of stock broker in Wall Street, but in 1883, at the request of his father-in-law, he accepted the presidency of the Wagner Palace Car Company, which under his management assumed large proportions. Doctor Webb is an officer in many associations and stockholder and director in a large number of railway, trust, and insurance companies. At Saranac Lake is a large sanitarium erected on 100 acres of land contributed by Doctor Webb for that purpose.

Dr James Cook Ayer, famous as a manufacturer of proprietary medicines and as an organizer and financier, was born May 5, 1818, in that part of the town of Groton, Conn., which now bears the name of Ledyard. In his veins ran the blood of old American families, distinguished for personal character and active interest in public affairs. Frederick Ayer, his father, who served as a soldier of the war of 1812, and died in 1825, was a son of Elisha Ayer, a hero of the American Revolution. The mother of Dr. Ayer was Persis Ayer, who died in Lowell, Mass., July 23, 1880.

Although he lost his father by death early in life, he was anxious for a liberal education and obtained it in his own way. An arrangement was made whereby he removed to Lowell. Mass., and there he attended the grammar school, going later to the Westford academy and Lowell high school. He then prosecuted alone for three years the course of studies prescribed at Harvard College, having the advantage of tutorship by the Rev. Dr. Edson in Latin only. An active mind led him to supplement this preliminary education by the diligent reading of sound and choice books and, through tenacious memory and an ardent desire for knowledge he became a man of extended scholarship and the most varied information.

In 1838, the youth found employment in the apothecary shop of Jacob Robbins in Lowell, as a clerk and student, and there gained the training which determined his occupation for life and led him on to fortune. For four years he studied chemistry with all the ardor of a fresh and vigorous nature, aided by his own training in study, and then studied medicine under Samuel L. Dana and Dr. John W. Graves. In both branches of science he became proficient, taking rank at an early day both as an excellent analytical chemist and competent physician. The University of Pennsylvania gladly gave him the degree of Doctor of Medicine.

In April, 1841, an opportunity to buy the apothecary business of Mr. Robbins, his former employer, presented itself; and securing a loan of $2,486 for this purpose, Dr. Ayer bought the shop and its stock of goods and conducted the business thereafter on his own account, and, it may be said, with such success that within three years he repaid the loan in full. Beginning thus without capital of his own, he had then come into the possession of a paying business. This little store was the foundation of the enormous industry which Dr. Ayer developed in later years.

November 14, 1850, Dr. Ayer married Miss Josephine Mellen Southwick, a daughter of the Hon Royal Southwick, for many years a woolen manufacturer as well as a political leader in that district.

In 1855, the manufacture of proprietary medicines was undertaken in accordance with formulas invented by Dr. Ayer himself. These prescriptions were primarily intended for the use of people resident on the frontier and in remote districts where, in case of sickness, the prompt services of a physician could not be obtained. They proved to be useful not only to persons so situated, but to the public at large, and soon found a ready sale. Dr. Ayer’s business grew in volume from year to year, until Ayer's proprietary medicines became known not only throughout the United States but in every part of the civilized world. Much of their success grew out of energetic and ingenious advertising. One of Dr Ayer's original ideas was the publication of an almanac yearly, which in addition to its valuable astronomical data and calendar should contain a great variety of irresistibly witty jokes as well as complete information about the medicines. Ayer's almanac was given away by the millions of copies, and became in time no less renowned and no less eagerly sought for than the medicines themselves. A large laboratory was built to accommodate the growing manufacture, and was expanded until it gave employment to nearly 300 persons. The establishment having been fitted up with machinery for the publication of 15,000,000 almanacs a year, 800 tons of paper were bought annually for this single branch of the extended advertising of the house. In 1877, the firm of Dr. J. C. Ayer and Company was succeeded by the J. C. Ayer Company.

While the fame of Dr. Ayer grows largely out of the publicity given to his medicines, yet it must be said that his genius had many sides and his versatility was extraordinary. While profoundly versed especially in the mysteries of chemistry, he loved also the physical sciences. One of his investments took place early in the war. In November, 1861, he bought four Sea Island cotton plantations at Hilton Head, Ga., and engaged in cotton raising with free black labor. Although there were difficulties to be overcome, yet he finally made the enterprise successful; and the grandson of John C. Calhoun is the author of a statement, that if the south had believed that such enormous crops could be produced with free labor, there would have been no war.

In 1865, Dr. Ayer invented processes for the disintegration and desulfurizing of rocks and ores by means of liquids, applied to them while incandescent. Three patents were secured upon these processes, but Dr. Ayer did not possess the facilities for manufacturing; and for convenience, he sold the patents to the Chemical Gold and Silver Ore Reducing Company. He was engaged in many public works. Among other ventures, he embarked in a plan of his own for supplying water to the inhabitants of Rochester, N. Y., from a beautiful sheet of water named Hemlock Lake. Much litigation attended this enterprise. Dr. Ayer was also one of the original projectors of the Lowell and Andover railroad and a large owner in its stock.

In 1870, he bought a large interest in the Tremont mills and the Suffolk Manufacturing company, two large cotton industries, then bankrupt and idle, and by consolidating them as the Tremont and Suffolk mills, he placed them under good management and made them the most successful in New England. He was treasurer of the corporation for many years. Having made large investments in other factories in Lowell and Lawrence, and was one of the most influential Dr. Ayer became deeply interested in honest and capable management, advocates of corporation reform, a question which attracted the attention of the manufacturing world for two decades. He stoutly opposed the management of great corporations in the interest of a few large stockholders, rather than for the good of all the owners, large and small; and the strenuous battle of Dr. Ayer awakened public interest and brought about the desired reform.

The famous Portage ship canal at Keeweenaw Point on Lake Superior, a mile and a half long, by which Portage lake and Portage river were opened through to Lake Superior, and 110 miles of dangerous navigation were saved and an excellent harbor created, was the product of his mind; and he was the inspiring genius and a large owner in the Lake Superior Ship Canal and Iron company, which built the canal. An effort was made to induce Dr. Ayer to lend his strong support to the Panama Canal, but his judgment of the impracticability of that water route led him to refuse to engage in the scheme.

Always taking a native born American's interest in public affairs, and fitted by natural gifts for public station, Dr. Ayer was mentioned for congress several times; and in 1874, he was nominated by the republicans his district. That was a year of tidal reaction against the republicans, and Dr. Ayer was defeated as were hundreds of the best men of the party that year. He probably would have been elected, however, had not Judge E. R. Hoar, whom Dr. Ayer had cordially supported on a previous occasion, run that year as an independent third party candidate, dividing the republican vote.

Ample means enabled Dr. Ayer to gratify impulses of genuine philanthropy, and he contributed a bell to the chime of St. Anne’s church in Lowell, in 1857. In 1866, he presented to the city a winged statue of Victory for the public square in Lowell and made the public address of presentation. When the town of Ayer was incorporated in 1871, it was named in honor of him, and he gave it a beautiful town hall.

A man of conservative ability, Dr. Ayer scorned to build his own fortune by wrecking those of others. Vast wealth came to him through untiring endeavor, honest methods, the development of new enterprises, fine organizing genius, great capacity, and a business judgment that was unusual. He never undertook what he could not accomplish and what ought not to be accomplished.

He was able, unaided, to build up one of the large fortunes of the United States, without incurring the hazards of speculation. While devoted to science, he loved literature and art. He was a good scholar in Greek and Latin, spoke French fluently, and learned Portuguese when fifty years of age. In his large house in Lowell he accumulated a large library and was fond of reading the soundest and choicest books, especially the works of Horace. Art in all its finer forms awoke his admiration, and had he not died before the completion of his plans. Lowell would have been enriched by gifts of paintings of great value.

He died July 3, 1878, universally regretted, leaving a large estate to his wife, his two sons, Frederick Fanning Ayer and Henry Southwick Ayer, and his daughter, the wife of Lieutenant-Commander Frederick Pearson, a gallant officer of the navy.

Frederick Fanning Ayer is a lawyer of high standing in New York City, although he has devoted more of his time of recent years to literary pursuits, having written much upon various topics, which he intends publishing later on.

Like all New England boys, Frederick Fanning Ayer received his education at the public school in his town; but, unlike the majority of them at that time, he was enabled to take further study, and he left Lowell for a four years' course at St. Paul's school in Concord. N. H. At Concord he drank in every atom of book learning that was possible, and acquired a mental training that stood him in excellent stead. But his education was not yet finished, for he was destined for one of the great American universities. Harvard.

In the meantime, however, there were other things to be done. Dr Ayer, his father, recognized the necessity of his son becoming thoroughly acquainted with the business side of life as well as the scholastic side, and decided to put the young man in a position where he could familiarize himself with the details of business at the best advantage. At this time, the elder Ayer was heavily interested in the Tremont mills and the Suffolk Manufacturing Company, both of which were subsequently consolidated as the Tremont and Suffolk mills, and which, placed under good management, were made the most successful in New England. The younger Ayer, however, entered the Suffolk concern as an operative and went entirely through it, working diligently in every capacity until he knew absolutely all the details of every process through which cotton passed.

Frederick Ayer had kept in mind all this time his determination to become a lawyer and a good one. By the time he was twenty-three he had graduated from Harvard with honor, and traveled in Europe in the company of his father, and had entered the law school at Cambridge, and in the following year he was admitted to the bar and began practice in partnership with Lemuel H. Babcock.

The city of Rochester, N. Y., was being supplied with water from Hemlock Lake by a company of which Dr. Ayer was the controlling spirit, and litigation having arisen between the city and the company. Dr. Ayer engaged Judge Henry R. Selden as counsel. The Ayer family being deeply interested in the case, Frederick studied all the questions involved while he was yet in the law school, and went to hear the case up for argument at Rochester. To his intense discomfiture, Judge Selden introduced him as his associate from Massachusetts, and declared that he would open the case. The young man was taken quite unawares but lost his self-possession only momentarily; he got up with beating heart and spoke for half an hour. The outcome of his effort may be gauged by the fact that his father handed him a check for $10,000, his first professional fee, rather a large one for a beginner, but the circumstances were unusual.

Old Dr. Ayer died in 1878, and his son then became the manager of all the great properties and business his father had founded. Two years previously he had relinquished the active pursuit of law to undertake the partial management of these interests, and was thus fully competent to fill the newly responsible position. It was well that the young manager had been grounded in law, for the Ayer estate was being threatened with all sorts of dangers and a master hand was required at the helm to steer the ship through the violent seas that encompassed it.

And it is in this position of trustee of the Ayer estate that Frederick Ayer has acquitted himself so wonderfully these past years. The fortune of Dr. Ayer has been doubled by the judicious investments of his son, and the latter has in addition much property and wealth of his own. He is a director of the Lake Superior Ship Canal Railway and Iron Company, the Portage Lake and River Improvement Company, the Lowell and Andover railroad, the J. C. Ayer Company, the Tribune association in New York, and the Tremont and Suffolk mills. In the management of all these interests, Mr. Ayer has developed a business ability of the very highest order. With it all he has followed out the plan of the late Dr. Ayer of never aggrandizing himself or his at the expense of others, and the consequence is that he is a much loved man in his community.

On several occasions Mr. Ayer has demonstrated considerable oratorical ability. On October 26th, 1876, on behalf of his father he made the address of presentation of the new town hall of town of Ayer to the civic authorities and delivered to them the keys of the building.

In 1886, a bill to secure minority representation and cumulative voting in the directory of industrial corporations was introduced in the Michigan legislature. Mr. Ayer was so interested in the question that he made a powerful plea for it and it was passed. Other states have since then followed Michigan's example.

Mr. Ayer has done much for the town of Ayer. He built the Ayer Memorial library at a cost of $40,000 and has helped to build a beautiful home for children in the town. To enumerate all his philanthropic acts, however, would be a difficult matter.

Mr. Ayer is a member of the Harvard Merchants', Riding, Down Town, New York Yacht, Union League and Metropolitan clubs, although he is not strictly a club man, for, socially, he is of domestic tastes and prefers to devote his leisure hours to cultured pursuits.

The origin of the Tilford family that has been prominent in business and social circles in New York City for a generation can be traced back for almost a thousand years. The name as it is in modern use, is a construction from the various spellings of the old Norman surname Taillefer. The family is frequently referred to in works upon Norman-French genealogy. The general opinion of Perigourd and the L'Angoumois, which is justified by the testimony of many distinguished scholars and critics, is agreed that the house of Taillefer was descended from the ancient Counts d' Angouleme and this opinion has been confirmed and perpetuated in the fact that the surname is illustrated by the coat of arms. Wlguin, chief of this powerful race, was invested with great possessions in the year 866 by King Charles le Chauve. Guillaume de Taillefer, first of the name and the son and successor of Wlguin, as Count de L'Angouleme, transmitted the name, de Taillefer, to his race by one act of valor and extraordinary strength, during a battle with the Normans, in the year 916. From this distinguished ancestor the line of lineage has been clearly traced down to the subject of this sketch.

The immediate ancestors of Mr. Tilford came from Scotland. The first of the name in this country emigrated during the reign of George the second and settled in Argyle, a little village north of Albany. James Tilford, the grandfather of Mr. Frank Tilford, was a captain during the war of 1812 and before him his father served throughout the war of the revolution.

Mr. John M. Tilford, the father of Mr. Frank Tilford, was the first of the family to break away from country life. When he was only twenty years old, having been born March 16, 1815, he came to New York City to seek his fortune in new fields. Finding employment in the grocery store of Benjamin Albro, he remained there five years until he thoroughly mastered the business. In 1840, with Joseph Park, a fellow clerk, he helped to organize the firm of Park and Tilford, that, beginning business in a small way, has become the leading house in its line in the world.

In many groups of business men and financiers of New York City, Frank Tilford is entitled to a place in the front rank. He, and his father before him, have helped to make New York the great city that it is today. He is a keen business man, an astute financier and a public-spirited citizen.

Mr. Tilford was born in New York City, July 22, 1852, receiving his early education at the Mount Washington Collegiate institute. Here he proved himself a proficient scholar and a brilliant opportunity presented itself for professional honors, but his inclinations and strong commercial proclivities decided him to make his future a mercantile life. His father, John M. Tilford, took him

into his firm as a clerk, and letting him work his way upward step by step, the young man eventually became vice-president of the largest grocery house in the world.

In October, 1873, when but twenty-one years old, he had shown such an ability to conduct a business successfully that he was made manager and given full charge of the concern's branch store at Thirty-Eighth Street and Sixth Avenue. In 1890, the business was formed into a close corporation, with John M. Tilford as vice-president. Upon the subsequent death of that gentleman, however, Fran Tilford was elected to fill the position which he still holds.

The year before this, 1889, Mr. Tilford, in connection with George G. Haven, organized the Bank of New Amsterdam, located at the corner of Broadway and Thirty-Ninth Street. He was vice-president of the institution until June 20, 1896, when he was elected to the important position of president, at which time the deposits amounted to a little over one million and now show the enormous growth to something over six million dollars. Safe deposit vaults have been added and under his direction the business has grown to such an extent as to necessitate the establishment of a branch institution at the corner of Third Avenue and Forty-Seventh Street.

Of such an energetic and enterprising disposition is Mr. Tilford that in addition to his banking and grocery business, he has time for other prominent and profitable enterprises, among which may be mentioned the Standard Gaslight Company of New York City, of which he is president; the New York and Queens Gas and Electric company, of which he is president, and a number of other gas and electric companies throughout the country in which he is a director; and president of many other industrial corporations.

He is a leading director in the Erie Telephone company, Telephone, Telegraph and Cable Company of America, as well as a director in many other telephone companies throughout the United States.

Mr. Tilford was the originator of the Fifth Avenue Trust Company of which he is a trustee, and is a director in many large and powerful corporations in New York City, as well as an active member of the Chamber of Commerce. As one of the executive committee of the Grant Monument association he was largely instrumental in the success of that movement. He is also one of the presidential electors for 1900.

Mr. Tilford is owner of the magnificent steel steam yacht Norman, and his palatial residence on that beautiful parkway—West Seventy-Second Street—is one of the most handsomely appointed edifices on the upper west side.

He is prominent in social circles, as well as a member of the Union League, Lotos, Republican, Colonial, New York Athletic, New York Yacht, and all the other leading yacht clubs, society of the Sons of the Revolution and American Society.

Among those who came to New England in 1635 with Sir Richard Saltonstall were John Whitney, his wife Elinor and his son Richard. Richard Whitney, 1660-1723, second of the name and grandson of the pioneer, was the first of the family born in this country. He was a native of Watertown, Massachusetts; married Elizabeth Sawtell, daughter of Jonathan Sawtell and of Hannah Whitcomb, daughter of Josiah Whitcomb of Lancaster.

General Josiah Whitney, 1713-1806, son of Richard and Hannah Whitney, was the great- grandfather of the Honorable William C. Whitney. His wife was Sarah Farr. In 1755 General Whitney fought against the French and Indians at Crown Point, in 1774 was in command of a militia company of Harvard, Massachusetts, and the following year was lieutenant-colonel of one of the colonial regiments. He was a brigadier-general in 1783. In civil life he was a justice of the peace, delegate to the constitutional convention in 1788, and a member of the legislature 1780-1789. His son, Josiah Whitney, 1753-1837, married Anna Scollay, and served in the continental army. Stephen Whitney, 1784-1852, grandfather of the Honorable William C. Whitney, was a representative from Deerfield to the Massachusetts general court, 1834-1835; His son, General James Scollay Whitney, 1811-1878, was the father of Mr. Whitney, whose mother, Laurinda Collins, was descended from Governor William Bradford of the Plymouth colony.

A democrat of the old school, James S. Whitney was brigadier-general of the second brigade of the Massachusetts militia in 1843; town clerk of Conway Massachusetts; a member of the legislature in 1851 and 1854; sheriff of Franklin county in 1851; superintendent of the National Armory at Springfield in 1854; collector of the port of Boston in 1860, and a member of the Massachusetts senate in 1872. Born in Conway Massachusetts, in 1841, the Hon. William Collins Whitney was graduated from Yale College in 1863, and in 1865 from the Dane School of Harvard College, soon after beginning the practice of law in New York. He early interested himself in public affairs in New York. He was active in the campaign that elected Samuel J. Tilden for governor, and in 1875 was elected corporation counsel and in that office brought about the codification of the laws relating to New York City which is still in use, and his administration of the office was distinguished it has been well said, "by reforms and economics within it and by notable legal triumphs for the city in the courts. Thirty-eight hundred suits were pending, involving between $40,000,000 and $50,000,000. He proceeded to reorganize the department with four bureaus, and within two years had doubled the volume of business disposed of while expenses were reduced. In 1882 he resigned office in order to devote his attention to private business, but in 1885 he became a member of President Grover Cleveland's cabinet, holding the portfolio of secretary of the navy. He prepared in his first report to congress a plan for the reorganization of that department of the government business, and it was afterward claimed that by the results which followed its execution, "for the first time in the history of the navy it has been possible to prepare complete statement by classes of receipts and expenditures of supplies throughout the entire service, and of the total valuation of supplies on hand for issue at all shore stations."

The following tribute was paid him by Senator Preston B. Plumb of Kansas, a political opponent, in a speech in the senate on February 12, 1889; "I am glad to say in the closing hours of Mr. Whitney's administration that affairs of his department have been well administered. They have not only been well but there has been a stimulus administered in the sense that everything has been honestly and faithfully done, given, so far as it could be done by executive direction, to the production of the best types of ships and the highest forms of manufacture. I am glad to say that during the past four years the navy department has been administered in a practical, level-headed, judicious way, and the result is such that I am prepared to believe and to say that within ten years we shall have the best navy in the world." Mr. Whitney's record at the head of the navy department need not be dwelt upon more in detail here, except to say that he proved to be the most efficient secretary that the country has ever had, and that he laid the foundation of our present navy. Since 1889 he has been active in national

politics, especially in the campaigns of 1892 and 1896, but has resolutely declined all political preferment.

In 1869 Mr. Whitney married Flora Payne, daughter of the Hon. Henry B. Payne, United States senator from Ohio. Mrs. Whitney died in 1892, leaving four children. The eldest, Harry Payne Whitney, who is a graduate from Yale University, married in 1896 Gertrude Vanderbilt, daughter of Cornelius Vanderbilt. The eldest daughter, Pauline Whitney, married in 1895 Almeric Hugh Paget, who is by birth an Englishman, and a member of a family represented for centuries in the peerage. The two remaining children are Payne Whitney, a student at Yale, and a daughter, Dorothy Whitney.

In 1896, Mr. Whitney contracted a second matrimonial alliance, his bride being Edith S. (May) Randolph, of East Court, Wiltshire, England. Mrs. Whitney died of injuries received from falling from her horse in the hunting field. The city residence of Mr. Whitney is in upper Fifth Avenue, opposite Central Park, and his country home, October Mountain, near Lenox, Massachusetts.

Mr. Whitney's town residence is a magnificent building on which he has spent thousands of dollars to rebuild and refurnish and is one of the finest in the city of New York.

Mr. Whitney is a director in the Central Crosstown railroad, Christopher and Tenth streets railroad, Horse Show association of New York, Manufacturing Investment company, trustee of the Metropolitan Investment company, trustee of the Metropolitan Museum of Natural History, director of the Metropolitan Opera House company, trustee of the Mutual Life Insurance company, Nassau County bank, Mineola (New York) National Horse Show association, National Union bank, Queens County Horse Show association, Second Avenue railroad, and trustee and member of the executive committee of the State Trust company.

Mr. Whitney belongs to all the leading clubs in New York City, and to many clubs in other parts of the country. He is a member of the Society for Prevention of Cruelty to Children, and a trustee of the Peabody Museum of Yale.

Cornelius Vanderbilt, railroad president, known for more than forty years as Commodore Vanderbilt, was born on Staten Island, May 27, 1794. He died in New York City, January 4, 1877. The first of the name in America, Jan Aertsen Van der Bilt, a worthy protestant from Holland, settled upon a farm on Long Island near the present city of Brooklyn about 1650. In 1715, a grandson of Jan, great-grandfather of Commodore Vanderbilt, removed to a farm on Staten Island, and is said to have owned considerable land.

During the early boyhood of Cornelius Vanderbilt, who was the oldest of nine children, his father changed his residence to Stapleton, at which place the family grew up. Like other farmers on Staten Island, he was his own boatman; but, unlike others, he had the thrift to carry to New York not only his own products, but that of others, and this was the origin of the Staten Island terry. Cornelius made many trips in charge of his father s boat. The young man was one of the most handsome lads upon the island. He was tall, athletic and brave, not over fond of hooks, but devoted to open air life and sports, a fine swimmer and a good oarsman and horseman.

The constraints of his early life were keenly felt by Mr. Vanderbilt, and, with a view to gaining greater independence, he finally offered to plow, harrow and plant an eight-acre lot for his mother if she would lend him $100, with which to buy a boat of his own. Mrs. Vanderbilt agreed to the proposition

of Cornelius, provided that he should complete his contract before his seventeenth birthday, then only twenty-seven days away. The time was short, the undertaking a physical impossibility for one youth; but Cornelius quickly secured the aid of a number of playmates and earned in 1810 the $100, which led him on to splendid fortune. His new boat earned its owner in three years over $3,000. Most of this money he gave to his mother, but a small part being retained was invested in two other boats; and Mr. Vanderbilt thus became the master of three vessels, one capable of carrying twenty people. The fare for a passenger at that time was eighteen cents. When the war of 1812 occurred, a large increase of travel to Staten Island followed, owing to the placing of garrisons at the Narrows. In 1814, Mr. Vanderbilt secured a contract to carry men and supplies to the harbor forts.

At the age of nineteen he married Sophia Johnson, a second cousin, and, inducing his mother to relinquish her claim to the principal part of his earnings, he saved $500 and moved to New York City. He continued to employ his sailing boats on the Staten Island ferry route, and to various cities on the Hudson River and Long Island sound. His first schooner, Charlotte, built in 1815, went into this coasting trade and in the winter he sailed the vessel himself.

It was during this period that Fulton on the Hudson and Roosevelt on the Ohio were developing the steamboat as a carrier of freight and passengers. When the steamboat had passed the experimental stage, he saw that the time had come to adapt himself to a new order of things. In 1818, therefore, he became captain of the steamboat Bellona. The salary of $1,000 a year was less than he was then earning, but diminishing receipts from his Hudson River sloops warned him of the coming triumph of steam. The Bellona was employed in conveying passengers from New York to New Brunswick on the rest of their journey to Philadelphia, the trip being made in stage coaches to Trenton and thence by boat to Philadelphia.

In 1827, Mr. Vanderbilt leased on his own account the ferry between New York and Elizabeth. N. J., and built for it new and improved boats.

In 1829, having saved about $30,000, he resolved to engage in the navigation of the Hudson River. His first boat, Caroline, became in later years the basis of an international incident in connection with the Canadian insurrection in 1837.

For twenty years he devoted himself to the establishment of new lines in the river, sound and coastwise trades, in the face of strong competition. During that time there were built for and operated by him in the neighborhood of one hundred steam vessels, and it was at this time that, as commodore of his fleet, he acquired the title of commodore. This remarkable man never feared opposition. On the other hand, he seemed to love and court it and always knew how to meet it. He gained the good-will of employees by treating those who were capable generously, while merciless in replacing with better men those who were incompetent, and he pleased the public by the superior facilities supplied. He operated his own foundries and repair shops, and by shrewd and energetic management gradually gained considerable means.

The discovery of gold in California heralded the dawn of a new phase of maritime enterprise in America. A monopoly of the traffic by way of Panama having been gained by various companies, and the fare to California being $600. Commodore Vanderbilt resolved to establish a competing line. Having built the steamship Prometheus, he sailed in 1850 for Nicaragua, personally explored a new route to the Pacific and secured a charter from the Nicaraguan government. In 1851, a semi-monthly

line, of which Mr. Vanderbilt was at first agent and later president, began operations on this route. In 1853 he sold his interest and then, a wealthy man, prepared to enjoy a vacation, to which he deemed himself entitled after more than thirty years of incessant labor, in accordance with his own plans, the splendid steamer North Star was built for him, and, with his family, he made an extended European tour.

During Commodore Vanderbilt's absence abroad, the management of the Nicaragua Transit company passed out of his hands, and upon his return, he found the purchasers of his interest in the Nicaragua steamship line disposed to evade the conditions of sale. This called forth a display of characteristic energy. A line of steamers between New Orleans and Galveston was at once established, and, in 1854, another line from New York to Aspinwall. A sharp and merciless struggle resulted in his possession of the Nicaragua Transit company. During the eleven years which followed, his profits were $11,000,000.

Upon the breaking out of the Crimean war, Commodore Vanderbilt resolved to establish a line of American steamers to ply between New York and Europe, intending to engage in a determined campaign to secure to the American flag the Atlantic carrying trade, but found that he could not operate his ships at a profit against the heavily subsidized European lines and his short but brilliant campaign failed. During this period of his life, Commodore Vanderbilt constructed many ocean steamers. During the civil war in 1862, the Vanderbilt, which had formerly plied in the ocean ferry to Havre and was the swiftest and best appointed steamer afloat, was presented to the federal government as a patriotic gift. This vessel gave valuable service as a cruiser during the war, and its donor received, in 1866, the thanks of congress and a gold medal, inscribed "A grateful country to her generous son."

In order to set free his capital, then amounting to at least $30,000,000, Commodore Vanderbilt began to sell his steamboat interests on Long Island sound about 1856-1857, and later sold or chartered to the federal government all his then remaining vessels.

As early as 1854, he had begun to buy shares in the New York and Harlem railroad, paying as low as $8, $9, and $10. In the same manner, while shares were low in price, he acquired a large interest in the New York and New Haven railroad. Among his first operations in Wall Street was a corner in Norwich and Worcester railroad stock. In 1860, he sought control of the New York and Harlem railroad, and in 1863 was elected its president. The stock, then $30 a share, rose to $92 in July and in August to $179.

After acquiring possession of the Hudson River railroad, he united it with the Harlem and instituted vigorous reforms in the management.

Commodore Vanderbilt in the winter of 1865 bought at a reduced price a controlling interest in the New York Central railroad. In 1867, he became president of the road, and in 1869 of the consolidated New York Central and Hudson River railroad, placing 1,000 miles of track and over $100,000,000 of capital under his control. The control of the entire line between New York and Chicago was secured when, at the annual meeting of the Lake Shore railroad, it was shown that the Vanderbilt party had possession of a majority of the stock.

Commodore Vanderbilt possessed the constructive temperament in a marked degree, and his great wealth came mainly from creating corporations which, under his management, were made to yield large dividends, the capital then being increased in harmony with the earnings.

His fight for the control of the Erie railroad is historic. In the end, Mr. Vanderbilt and his adversaries were compelled to adjust their differences between themselves, and the control of the Erie road passed into the hands of Jay Gould and James Fisk, Jr. In this campaign Commodore Vanderbilt lost $7,000,000, but recovered nearly $5,000,000 by legal proceedings.

In later years his operations in Wall Street were not conspicuous, although he remained constantly on the alert to protect his interests.

His faith in the New York Central and Hudson River railroad was strong to the last. In 1872, he became a large buyer of the securities of the Western Union Telegraph company also. When he rested from his labors he had accumulated an enormous fortune, estimated variously at from $60,000,000 to $100,000,000.

As he felt his end approaching. Commodore Vanderbilt made thorough preparations and left his great properties carefully disposed of.

He was a man of great physical vigor handsome and striking personality, six feet tall, and with clear complexion. He dressed plainly and was abstemious in his tastes. For the last twenty-five years he lived in a plain brick house in Washington place. He was a man of few words. Politics did not interest him. He was fond of driving fine horses and was frequently to be seen driving in the park or on Harlem lane and on trotting days at Fleetwood Park. Among large gifts which he made may be mentioned $1,000,000 to Vanderbilt University in Nashville, Tenn., and the edifice of the Mercer Street Church in honor of the Rev Charles F. Deems, its pastor. He was the father of thirteen children by his first wife: Phebe Jane, wife of James M. Cross; Ethelinda wife of Daniel B. Allen; Elizabeth, wife of George A. Osgood; William H. Vanderbilt; Emily, wife of William K. Thorn; Sophia J., wife of Daniel Torrance; Maria Louisa, wife of Horace F. Clark; Frances, and Cornelius Johnson Vanderbilt; Mary Alicia, wife of Nicholas La Bau; George W. Vanderbilt; Katharine Johnson, wife of Smith Barker, Jr., and George Vanderbilt second. The latter died in 1866 from disease contracted in the Corinth campaign. Mrs. Vanderbilt died in 1867, and the Commodore in 1868 married Miss Frank A. Crawford, a southern lady, who survived him.

William Henry Vanderbilt, railroad president, oldest son of Commodore Vanderbilt, born in New Brunswick, N. J., May 8, 1821, died at his New York house, December 8, 1895. For nine years after his birth, the family lived in New Brunswick, then a small town. William attended country school for a while, but, after the removal of the family to New York, was sent to Columbia Grammar school. He then found employment in a ship chandlery store, kept by a relative, and at the age of eighteen became a clerk in the banking house of Drew, Robinson and company, at a salary of $150 for the first year, which was increased to $300 the second year, and $1,000 at the beginning of the third. When twenty years of age, he married Miss Maria Louisa Kissam, the daughter of a clergyman of the Dutch Reformed Church at Albany. By diligent attention to the interests of his employers, Mr. Vanderbilt won their regard and an offer to make him junior partner. Sedentary occupation had begun to affect his health, however, and he was forced both to decline the offer and give up his position. It is said that Commodore Vanderbilt did not foresee the splendid business man which his son was destined to

become, and it is certain that at that period he thought farming better suited to the young man's ability. He therefore helped William to buy an unimproved farm of seventy acres on Staten Island, and there the latter established himself with his young wife to enter upon the laborious life of a farmer. After various trials, so successful did he become in the cultivation of this land that, within a few years he had 250 acres under cultivation and was making $12,000 per year from the sale of produce. Here he remained until the time had arrived for him to take part in the management of some of his father's properties.

In 1853, he visited Europe with his father and the rest of the family. Three years after this, the Staten Island railroad from Stapleton to Tottenville was chartered, with Commodore Vanderbilt as principal stockholder. Finished in 1858, the road proved a losing investment from the start and in two years was bankrupt. William H. Vanderbilt, then one of the most prominent men on the island, was made receiver of the road. This little line was only thirteen miles long, but it served to acquaint Mr. Vanderbilt with the details of railway management and to show his ability. He quickly mastered the situation and rescued the company from bankruptcy within two years and became its president. No man at that time was a better judge of the value of such services than Commodore Vanderbilt, and although he was slow to acknowledge the greatness of his son, yet he did in time.

In 1864, William H. Vanderbilt was elected vice-president of the New York and Harlem railroad. From that time forward, until his father's death in 1877, Mr. Vanderbilt was responsible in large part for the oversight and execution of many of the great operations undertaken by his father and gained an intimate knowledge of the mysteries of railroad management. In 1877, he succeeded to the presidency of the New York and Harlem, the New York Central and Hudson River and the Lake Shore and Michigan Southern railroads, and to the possession of nearly nine-tenths of his father's fortune, with its tremendous responsibilities. One of his early acts was to add to the bequests of his sisters a personal gift of five hundred thousand dollars each, delivering it to them himself, when he gave them their shares under the will.

From the beginning of 1877 to the fall of 1881, the business history of Mr. Vanderbilt was identical with that of the system of roads which bears his name and was a season of great activity in railroad matters. During 1877, he bought the Canada Southern and the Michigan Central railroads and added them to the Vanderbilt system.

During his active career Mr. Vanderbilt engaged in many large operations in stocks, especially in Philadelphia and Heading and Chicago and North-Western, which were undertaken mainly to sustain the properties in which he was especially interested. Clear-headed, sagacious, and resolute, and possessing abundant capital, he was usually successful in these and other undertakings and practically doubled his fortune.

In November, 1879, Mr. Vanderbilt, to protect his road from the attacks of great rivals and at the same time change the character of a part of his investments, in order to make them more ready of distribution in case of his death, made the largest sale of railway stock in history by any individual owner. He sold at that time, to a syndicate representing a number of foreign capitalists, 250,000 shares of New York Central stock at $120 a share and invested He was known to be the proceeds in government bonds, the owner of 4,000 shares, worth in the market $130 each.

In the midst of the next great railroad war, that of 1881, Mr. Vanderbilt withdrew from the actual labor of railroad management and transferred the financial administration to his son, Cornelius, and oversight of the practical operations to his son William K. Vanderbilt.

May 4, 1883, Mr. Vanderbilt finally surrendered the presidencies of his various railroads, making arrangements, however, for harmony in their management and a continuance of the policies, which had theretofore met with the approval of the stockholders. His last achievement was the leasing of the West Shore road in order to put an end to competition, and this was accomplished only a day or two before his death.

Mr. Vanderbilt was a man of large physique, nearly six feet in height, well proportioned and active in movement. Sometimes abrupt in speech, he was as a rule genial in business affairs and easy almost to graciousness in social conversation. He was a hard worker, an excellent judge of character, quick in intuition, generally correct in his judgments, fearless of the dangers which surround a man of his prominence, and exceedingly regular in his daily inherited from his father of routine. He had that quality, being able to select the right man for any position and to leave its work to him with confidence that it would be well done. He was a domestic man, fond of the society of his wife and children, and enjoyed family gatherings at his house. His family life was always of the most pleasant character, and his wife, upon whom devolved the duty of bringing up their large family of nine children, only one of whom died in youth, was the same loving spouse and mother amid the magnificence which surrounded their latter days as in earlier times on the Staten Island farm.

One of his later undertakings was the building of his Fifth Avenue mansion which was the most handsome, private dwelling in America, and contained besides numerous works of art, a magnificent collection of paintings, most of which had been selected by himself or painted to his order. His taste ran mostly toward brilliant historical pictures, although many other subjects were represented, and upon many occasions he permitted the public to view his collection. Like his father, he was a lover of fine horses. One of his first feats was to drive Small Hopes and Lady Mac a mile to a top road wagon in 2.23 1/4 on Fleetwood Park track. This time had never been deemed possible and created a sensation in the trotting world. Later, he bought the celebrated Maud S. and one time drove her with Aldine to a top road wagon over the same course in 2.15 ½, the fastest time ever made by a trotting team under any circumstances.

While a liberal donor to philanthropic work (some of his gifts being too great to remain unknown), Mr. Vanderbilt avoided publicity wherever possible. Many of his benefactions have never been made public. On the presentation of the obelisk to this city by the Khedive of Egypt, Mr. Vanderbilt defrayed the entire cost of its transportation and erection in Central Park. He also gave $100,000 to the Vanderbilt University at Nashville, Tenn., for the erection of a theological hall. His other gifts to this institution at various times amounted to much more, and he left it $200,000 in his will. He was also a large contributor to the Deems fund for the education of indigent students at the university of North Carolina, and made several generous gifts to the university of Virginia. In 1884, he gave $500,000 to the College of Physicians and Surgeons of New York for a site and the erection of a new building. His generosity towards General Grant at the time of the disastrous failure of Grant and Ward is well known. By his will, he gave $100,000 to the Metropolitan Museum of Art; $300,000 for Episcopal missions; $100,000 each to St. Luke's hospital, the Young Men's Christian association, and the United Brethren's church on Staten Island; and $500,000 more to other institutions, a total of a

million dollars. His religious feelings were strong and well founded. He was a life-long communicant of St. Bartholomew's Church, having become a member of that body when he first came to the city. For many years he served as a vestryman. When that church moved uptown he was a member of the building committee for the new structure, and gave liberally of both his time and money to this work. His children were: Cornelius, William K., Frederick W., and George W. Vanderbilt; Margaret Louisa, wife of Elliott F. Shepard; Emily Thorn, wife of William D. Sloane; Florence Adele, wife of Hamilton McK. Twombly; and Eliza O., wife of William Seward Webb.

Cornelius Vanderbilt, eldest son of William H., was born on Staten Island, New York, November 27, 1843, and died September 12, 1899. He was educated at private schools, and at an early age he commenced business life in the office of the Shoe and Leather bank of New York City.

Here he remained four years, performing the simple duties of a clerk, but showing remarkable aptitude for the study of accounts and affairs of finance. After spending about two years in the private banking house of Kissam Brothers, he was appointed to a position in the treasurer's office of the New York and Harlem railroad company. When twenty-four years of age, he married Miss Alice Gwynne, the daughter of a former distinguished lawyer of Cincinnati. From 1867 to 1877 he was treasurer, and from 1877 to 1886 vice-president, of the New York and Harlem railroad. He then became president of the road, which office he continued to hold the remainder of his life.

On the death of Commodore Vanderbilt in 1877, Cornelius was chosen vice-president of the New York Central and Hudson River railroad and took entire control of the finances of the road—a department for which his natural abilities and his ten years' experience as treasurer of the Harlem eminently fitted him.

In 1878, he became treasurer of the Michigan Central railroad company and of the Canada Southern railway company; in 1879, vice-president and treasurer of the latter; in 1880, vice-president and treasurer of the Michigan Central.

His father retired in May, 1883, from the presidency of the New York Central and Hudson River Railroad Company, the Lake Shore and Michigan Southern Railway Company and the Michigan Central Railroad Company, and Cornelius and his brother resigned their vice-presidencies. A new system of management was then inaugurated, under which the president was still the chief of the executive, but the supreme authority became vested in the chairman of the board of directors. Under the new arrangement Cornelius became chairman of the board of the New York Central and Hudson River railroad and of the board of the Michigan Central railroad and his brother assumed the same position in the Lake Shore and Michigan Southern railway. During Mr. Vanderbilt's incumbency of these various offices negotiations of magnitude and importance in the railroad world were consummated, notably the acquisition by the New York Central, under lease of the West Shore Railroad, the Rome, Watertown and Ogdensburg railroad, the Mohawk and Malone railroad, and the New York and Putnam railroad.

The Vanderbilt system comprised the following roads: New York Central and Hudson River railroad and its leased lines, the Lake Shore and Michigan Southern, the Michigan Central and its auxiliary line, the Canada Southern; the Chicago and North-Western; the Chicago, St. Paul, Minneapolis and Omaha, and the Cleveland, Columbus, Cincinnati, and St. Louis. Over all these roads, Mr. Vanderbilt, with his brother, exercised a strict supervision.

Numerous and exacting as were his railroad interests, he nevertheless gave much time to religious and charitable work, and he was associated as a director or trustee with many public organizations, societies and institutions, among them being Young Men's Christian association St. Luke's, hospital, Sloane Maternity hospital. Domestic and Foreign Missionary society of the Protestant Episcopal church, Protestant Episcopal Church Missionary society for seamen in the city and port of New York Tribune, Fresh Air Fund society, General Theological seminary, Metropolitan Museum of Art, American, Museum of Natural History, New York Botanical Garden, Home for Incurables, Hospital Saturday and Sunday association, New York Christian home for intemperate men, New York society for the relief of the ruptured and crippled, New York Eye and Ear infirmary, Columbia College and Provident.

Loan society, and for many years he was a member of the vestry of St. Bartholomew's Church of New York City. Of a deeply religious and conscientious nature, he was ever ready to fulfill every duty he assumed and his attendance at a meeting of trustees of any of these institutions was as faithful as his examination of an abstruse railroad statement of finance.

Mr. Vanderbilt gave very generously, but quietly, of his abundant means and among his benefactions were the gift of the handsome building on Forty-Fifth Street and Madison Avenue, New York, for the use of railroad employees, and a contribution of $100,000 for the Protestant Episcopal cathedral; jointly with his mother, he erected the St. Bartholomew's Mission house on Forty-Second Street, New York. He also gave largely to Vanderbilt Clinic of the College of Physicians and Surgeons, to Columbia College and to Vanderbilt University. To the Museum of Art he gave a collection of drawings by the old masters and the painting of the "Horse Fair" by Rosa Bonheur.

Mr. Vanderbilt was a member of the following clubs: Knickerbocker, Union, Metropolitan, Union League, New York Yacht, Country, Riding, West Island, St. Nicholas Association, Century, Grolier, Newport Reading Room, Players' Club, Lawyers', Down Town, Press, Transportation, and Mendelssohn Glee club.

Mr. Vanderbilt's residence, Fifth Avenue, Fifty-Seventh and Fifty-Eighth streets, is an imposing structure. His beautiful summer home "The Breakers." at Newport, R. I., was completed in 1895. At South Portsmouth, seven miles from Newport, his "Oakland Farm" is located, being a tract of about 200 acres of land with perfectly equipped buildings and barns—a model gentleman's farm.

Four sons and three daughters were born to Mr. and Mrs. Vanderbilt. His eldest son, William H., died in 1892, at the age of 21. The sons living are Cornelius, Alfred Gwynne and Reginald Claypole; the daughters, Mrs. Harry Payne Whitney and Miss Gladys.

Mrs. Cornelius Vanderbilt was Alice Claypole Gwynne, daughter of the late Abram Evan Gwynne, who graduated from Yale College, class of 1839, and was admitted to the bar in Cincinnati, Ohio, in 1842. He died at the age of 32. His book on The Duly of Sheriffs is still in use. He was the only child of Major David Gwynne, United States army, and Alice Claypole, whose ancestor, James Claypole, was one of the seven distinguished men who came to America with William Penn. Sir John Claypole, his brother, married Elizabeth, daughter of Oliver Cromwell. Mrs. Vanderbilt is descended, through her mother, from Sir James Moore, who was colonial governor of South Carolina in 1700, and from Richard Ward, a governor of Rhode Island.

William K. Vanderbilt, second son of William H. Vanderbilt and Maria Louisa Kissam, and a favorite grandson of the Commodore, was born at Staten Island. December 12, 1849. He was educated especially with a view of taking a prominent place in railroad transportation and finance, completing his studies in Geneva, Switzerland.

The young man began his business career as a clerk in the office of C. C. Clarke, treasurer of the Hudson River Railroad, at a small salary. He had a thorough training in railroad work, and in 1877, was made second vice-president of the New York Central and Hudson River railroad, filling that high position until 1883. In 1882, he became president and chairman of the board of directors of the New York, Chicago and St. Louis, and in 1883, he became chairman of the board of directors of the Lake Shore and Michigan Southern. In his management of these properties he has displayed good judgment and is regarded as a man of quick resource and conservative methods.

Mr. Vanderbilt is a true sportsman and a liberal patron of yachting. He owns the Valiant, one of the finest steam yachts in commission in America, lie has been interested in all the great international contests, contributing towards the construction of the champion racers, the Colonia, Defender, and Columbia, helping largely to keep the Temple Cup in America. He is also prominent in social circles, being one of the originators of the Metropolitan club and a member of the Union, Knickerbocker, Players', Racquet, Coaching, Country, Turf and Field, and Transportation clubs, also the New York, Larchmont, and other yacht clubs. He is a patron of the Metropolitan Museum of Art, the American Geographical society and the St. Nicholas society. He married Alva Smith of Mobile, Alabama, and has a family of three children: Consuelo, who married the Duke of Marlborough, and is the leader of the most exclusive circle of the English aristocracy: William Kissam Vanderbilt, Jr., who married Miss Virginia Fair, daughter of James G. Fair; and Harold Stirling.

Cornelius Vanderbilt, who, it may be said, is better known to the general public as Cornelius Vanderbilt, Junior, having only acquired the nomenclature pure and simple by the recent death of his father, was born in New York on the 5th day of September, 1873. His early education he received at St. Paul's school, where his brothers were also educated, and which indeed has started the career of most of the wealthy scions of New York's fashionable clientele.

He was an unassuming youth, and gave great scholastic promise, which was fully borne out by his subsequent career at Yale, from which university he graduated as Bachelor of Arts in 1895. For scientific work done since then, he has been honored with the degrees of Ph. B. and M. E., bestowed upon him by the Sheffield Scientific School of Yale University.

On August 3, 1896, he married Miss Grace Wilson, daughter of Richard T. Wilson of New York, and has two children, Cornelius, born April 30, 1898, and Grace, born September 25, 1899.

Latterly he has spent the major portion of his time in the Motive Power and Civil Engineering department of the New York Central Railroad, where for two years he has mingled with the workmen in democratic fashion, acquiring additional scientific knowledge in the field which always appealed to him, and for which he has shown himself admirably fitted.

One of his chief pleasures is yachting and during the past ten years he has taken part in the cruises of the New York Yacht Club, and sailed his racing yacht in many of the races off Newport.

He is not a clubman in the strict sense of the word being of a domestic nature and devoted to his home, but is nevertheless a member of the Knickerbocker, Metropolitan, New York Yacht, Corinthian Yacht, and Engineers' clubs, and of the American Society of Mechanical Engineers.

He has recently designed and patented a locomotive boiler, and an engine of this design is now in regular service. The New York Central and Hudson River railroad completed this locomotive last August in their shops at West Albany, and the experimental engine proved successful, so successful, in fact, that after a thorough test and trial in actual service, five more of the same type have been ordered.

The difference in the Vanderbilt boiler and the ordinary locomotive type is chiefly in the general arrangement and form of firebox used. At various times attempts have been made to use cylindrical corrugated fireboxes in locomotive boilers, but up to the present these attempts have failed.

By an arrangement of details too technical to describe, Mr. Vanderbilt has produced a locomotive boiler design, in which the cylindrical corrugated firebox is successfully incorporated. The advantages of the design as a whole are apparent to anyone familiar with locomotive construction, since it makes a much simpler boiler, materially cheapens the cost of repairs by doing away with the stay-bolts used in the ordinary firebox, and is at the same time more efficient. The trials of the present engine have been watched with much interest by the practical railway world, since it solves one of the greatest railway motive power problems, that of broken and leaking stay-bolts.

Alfred Gwynne Vanderbilt, second son of Cornelius and Alice Gwynne, was born in New York City October 20, 1877. His education, begun at St. Paul's school, Concord, N. H., was completed at Yale University, where he was graduated in 1899. As is usual with the descendants of the family, he will eventually take a prominent part in the management of the vast interests with which the Vanderbilts are identified. Modest in demeanor, he was popular with his classmates, and is a member of many of the most exclusive clubs of the metropolis, including the Knickerbocker, Metropolitan, Riding, Coaching, and New York Yacht clubs.

The Rossiter family today is represented by many distinguished American citizens and they are descended from a sturdy old English stock, which in the seventeenth century peopled the town of Plymouth, England. The pioneer American was Edward Rossiter, who emigrated in 1630 and settled in Connecticut. In 1636, his son Bryan, a doctor and a clergyman, was one of the founders of Windsor Connecticut. In 1652, he was magistrate and recorder of Windsor, Connecticut. By intermarriage the Rossiters are allied to the great families of Mather, Cotton, and Hyde. Josiah Rossiter was also a magistrate and recorder, and a member of the upper house of assembly of Connecticut from 1701 to 1711. He was the father of seventeen children and a highly respected member of the community. His youngest son, the Reverend Ebenezer, was a graduate of Yale College in 1718, and Ebenezer's two sons, John Cotton and the Reverend Dudley, were Yale graduates in 1756.

A branch of the family settled in Williamstown, Massachusetts, and Lucius T. Rossiter subsequently removed from Williamstown to St. Louis, Missouri. This gentleman was the father of Edward Van Wyck Rossiter, the subject of this sketch, who was born at St. Louis, Missouri, July, 1844. He was brought east, however, and educated in the Collegiate and Polytechnic institute of Brooklyn, New York. When only fifteen years of age, it was decided to make him a railroad man, and the boy approved of the decision. His first start was in 1859 as a clerk to President Sloan, of the Hudson River

railroad company. In 1860 he was made a clerk in the treasurer's office and held the position for seven years. Then he was for several years cashier of the New York and Harlem railroad and subsequently assistant treasurer, and treasurer of that road. In 1869, the New York Central and Hudson River railroad companies were consolidated, and shortly after Mr. Rossiter was made assistant treasurer, and in 1883, treasurer. In 1886, he was appointed as secretary and treasurer of the West Shore railroad. Besides these important offices, he is secretary and treasurer of many of the subsidiary lines, and those leased and affiliated with the New York Central system. Besides his railroad positions, he is vice-president of the Lincoln National bank, vice-president of the Flushing bank, and for six years was president of the board of trustees of the village of Flushing.

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Among the men who have made a history for the country as well as for themselves by the clever management of the great lines of railroad which interlace these great United States, George Henry Daniels must claim a foremost place. Mr. Daniels is a product of the west; he was born at Hampshire, Kane County, Illinois, December 4, 1842, and was educated in the public schools at Aurora. When only fifteen years old he started out to make his way in the world by becoming a rodman in the engineering corps of the North Missouri railroad. Subsequently he was on the survey of the line north of the Hannibal and St. Joseph railroad in 1857 and 1858. When the war broke out the young railroad surveyor joined the First Regiment of Marine artillery in 1862, and later he was transferred to the transport service of the United States as a steamboat pilot. Having served faithfully and honorably all through the war, Mr. Daniels returned to the railroads. His interest was great in his work and his rise upward was rapid. In quick succession he became general freight and passenger agent for the Chicago and Pacific railroad. He was then only thirty years old and he held the position eight years. Then he was general ticket agent of the Wabash, St. Louis and Pacific railway. Turning to another branch of railroading he was a commissioner of the Iowa Trunk Line association, and in November, 1882, was elected commissioner of the Colorado traffic association and held the position until 1886. He organized the Utah traffic association, but he resigned all his positions to accept the commissionership of the Central Passenger association, which was succeeded by the Central Traffic association, of which he was vice-chairman as well as chairman of the Chicago East-bound Passenger committee, and in March, 1889, he attained the crowning point of his career when he was appointed general passenger agent of the New York Central and Hudson River railroad.

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Subsequently Mr. Huntington and his associates, Hopkins, Stamford and Crocker, created and built the Southern Pacific railroad. When Thomas A. Scott planned to extend the Texas Pacific to the west coast, Mr. Huntington rapidly extended the Southern Pacific across Arizona and New Mexico, meeting Scott's line near El Paso and pushing the road through to San Antonio. He secured a tidewater outlet at New Orleans by acquiring the Galveston, Harrisburg and San Antonio railway, the Texas and New Orleans, Louisiana and Western and Morgan's Louisiana and Texas Railroad and Steamship Company. In 1884 Mr. Huntington organized the Southern Pacific Company of Kentucky, thus unifying in operation a system comprising twenty-six separate corporations, owning 8,597 miles of railroad and 4,976 miles of steamship lines.

At the time of his death, August 13, 1900, Mr. Huntington was the active head of the roads which he had helped so largely to create and was the guiding spirit in other great enterprises. He was president of the Southern Pacific Company and of the Pacific Mail Steamship company, and he built and owned the dry dock and shipbuilding yard at Newport News, Virginia, the various organizations which he controlled giving employment to nearly 100,000 men. His charities, though numerous, were unostentatious. He gave liberally to any cause that seemed to him deserving, and he was greatly interested in the uplifting of the Negro, to whom he was a steadfast friend. He left an estate valued at over $50,000,000 to his widow and adopted children, Archer M. Huntington and the Princess Hatzfeldt.

John W. Mackay has accumulated the wealth that he possesses largely with his own hands and honest labor. Mr. Mackay was born in Dublin, November 28, 1831. He came to America in 1840, and was educated in New York City. Park Row and City Hall Park were his playgrounds, and today he owns one of the largest and finest buildings in that section.

Young Mackay started his career as a boy in the office of William H. Webb, the great shipbuilder. Afterwards he migrated to Louisville, Kentucky, and, in 1851, on the outbreak of the gold fever in California, he went west with a party of twenty-five, including James Flood and William O' Brien who were subsequently his partners in the great Bonanza mine. Mackay went straight to the mines, working hard and acquiring a technical knowledge of mining. In ten years he made and lost a fortune, and he determined to try his luck in Nevada. There he worked steadily for twelve years with varied results. In 1872, however, he came across the great Bonanza mine on a ledge of rock in the Sierra Nevadas, under what is now Virginia City. The discovery proved to be vast deposits of gold and silver, the most remarkable in history. Mr. Mackay took in as his partners Flood and O'Brien, and James G. Fair, thus constituting the great "Bonanza Four." They worked the Comstock Lode with continued success and amassed riches "beyond the dreams of avarice." Mackay and Fair with their own hands took $150,000,000 out of the Comstock mine.

Mr. Mackay personally superintended all the works and he was always to be found on the lower levels working as a plain miner.

In 1878, Mr. Mackay founded the Bank of Nevada with headquarters in San Francisco. In 1882, he became a partner with James Gordon Bennett, laying two cables across the Atlantic from the United States to England and France, and is today the head of the Commercial Cable company and the Postal Telegraph company. In 1885, he was offered the nomination for United States senator from Nevada, an honor he at once refused. He is widely respected, and has given largely to charitable and

educational undertakings. His enterprises give employment to many thousands of men and his liberality to his employees has earned him an enviable reputation.

Mr. Mackay is a member of the Lawyers', Players', and other clubs, and is a patron of the American Geographical society.

In 1875, Mr. Mackay married Marie Louise Hungerford Bryant. Mrs. Mackay is prominent in social circles, having been presented at practically all the courts of Europe, an honor which has been accorded few American men. Mrs. Mackay's grandfather was a Hungerford of Farleigh castle, who took part in the war of 1812, while her father was colonel of the 76th New York regiment in the civil war. For many years Mrs. Mackay has resided abroad and her home in Carleton House Terrace London, has been the center of many distinguished gatherings, though since the deplorable death of her eldest son, John W. Mackay, Jr., through an accident, in Paris, she has withdrawn largely from social affairs. Her acts of benevolence are many and much of her time is given to charitable works. Mrs. Mackay's daughter is the Princess Colonna Galatro. Her surviving son, Clarence H. Mackay married Katherine A. Duer, a direct descendant of one of the oldest and most aristocratic families of America, and is prominently identified with the management of important enterprises.

The world of finance during the last half century has drawn to its ranks many of our best Americans, men of intelligence, mental ability and brain force; men who could daily meet master and overcome the difficult problems encountered in banking and railroad circles, and in the development of the weapons of warfare and implements of peace.

We of the present generation are greatly indebted to the pioneer workers in the various departments of finance, transportation and industry. Vast wealth is now employed as a result of the persistent and constant efforts of the brave men who faced difficulties and often privation to bring forth to a successful completion a new system or method of transacting business, or an economical and time-saving invention.

It is interesting to observe how that great civilizer, iron, advances with the advance of civilization. Knowledge of the use of iron gave to the barbarians who discovered it, and to their successors, dominion over all the world. And the nations, wherein the iron industry is most fully developed are always the foremost nations in wealth and power. Until recently Great Britain occupied that position; now it is the United States. And to no one in the United States does the iron industry owe more than to George W. Quintard, who has been so prominent in the iron and steel construction industry.

What marvels of development Mr. Quintard has seen during his lifetime! Steam caught and held by iron to minister both together in a thousand ways to the benefits of mankind; also electricity; not to mention what wonders have been wrought by iron in the construction of engines of every kind, of machinery, of modern battleships, of sky-scraping buildings, of bridges, and in a thousand other ways.

Mr. Quintard entered the firm of T. F. Secor and Company, of New York City, in 1847, and in 1850 complete ownership of this great iron plant was acquired by him and his father-in-law, Charles Morgan, of the Morgan Railroad and Steamship company. During the sixteen years from 1850 to 1866, the Morgan Iron works were developed and operated by Mr. Quintard, who soon made this establishment one of the most notable connected with ship-building in the world. During this period

more than one hundred vessels were built for the American marine service alone. One of these vessels was the United States, the first American steamship which crossed the Atlantic. Here in 1853 were built the engines which pumped up the water supply for the growing city of Chicago. Again, Mr. Quintard's contribution toward the development of the United States navy was scarcely less notable than that toward the merchant marine. He built engines for a large number of the war-vessels flying the stars and stripes, while throughout the civil war he employed more than fifteen hundred men in constructing engines, building ships, and making general repairs for the federal government. The ironclad Onondaga, the cruiser Ticonderoga, and a number of double-enders of lighter draught, were all his work. He built engines for the Idaho, Algonquin, and numerous other warships.

In 1866, the Morgan Iron works were sold to the late John Roach. The following year Mr. Quintard established in New York City the Quintard Iron works, one of the largest institutions of its kind in existence, now owned and operated by Mr. Quintard's son-in-law, N. F. Palmer. This establishment was soon made famous. Here were built the engines for the United States warship Maine, so treacherously destroyed by the Spaniards in Havana harbor. Here likewise were built the engines for the cruisers Concord, Bennington, and Marblehead; in addition six sets of pumping engines for Chicago, with sets for Boston, Albany, and New Bedford.

Mr. Quintard's genius for affairs may be traced in many other directions, as for example as assignee in such failures as those of John Roach of New York, and Harrison Loring of Boston, which he settled with consummate skill and fairness. He founded the New York and Charleston Steamship company in 1868, and directed its policy during the succeeding twenty years, disposing of the line in 1888 to the South Carolina Railroad company. By the appointment of Governor Dix he served a term as commissioner of emigration of New York. He also served as commissioner of parks, and during his term the city was given one of the finest systems of parks in the world.

Mr. Quintard is director of the Pennsylvania Coal company, vice-president of the Ann Arbor Railroad company, a director of the Union Ferry Company and vice-president of the Eleventh Ward bank. He is a trustee of the Colonial Trust Company and the Atlantic Mutual Insurance company. He is a director of the Erie Railroad company, the Leather Manufacturers' National bank, the State Trust company, the Manhattan Life Insurance company, the German-American Real Estate Title Guarantee company, the Island Railroad company, the International State Casualty company, the Batopilas Mining company, and the newly organized Trust Company of New York.

Beside his house in New York City, Mr. Quintard has a beautiful country place at Portchester, Westchester County, New York, which he purchased in 1863. He was born in Stamford, Connecticut, April 22, 1822, and is lineally descended from Isaac Quintard, who settled in Stamford in 1708. The latter, of Huguenot descent, was born in Bristol, England. He was a merchant at York, England, prior to his removal to Connecticut.

The Morgans are of Welsh descent; the original ancestor is traced back to the sixteenth century as William ap Morgan of Llandaff. The American pioneer was his son, Miles Morgan, who landed in Boston, Massachusetts, in 1636, and his son, Joseph, was a farmer and among the first settlers Springfield. He afterwards became a banker and was the successor of the great American firm of George Peabody and company. Joseph’s son was Junius Spencer Morgan, also a banker. He married Juliet, daughter of the Rev. John Pierpont of Boston, and their eldest son was John Pierpont Morgan,

who was born at Hartford, Connecticut, on April 17, 1837, and who is today estimated as a great financier both in America and in Europe.

The young man was educated at the Hartford High School, the Boston Latin School, and completed his studies at Vevey in Switzerland and at the University of Gottingen. When twenty years of age, he returned to America and began a business career of great brilliancy and success. He first entered the banking house of Duncan Sherman and company of New York City, and there he laid the foundation of his splendid reputation and marvelous financial knowledge. In 1860, although only a comparatively young man, he was appointed American agent and attorney for George Peabody and company of London, and in 1864 he founded the firm of Dabney, Morgan and Company. For seven years he gained greater knowledge as a New York banker, and in 1871 he became the junior partner in the great financial house of Drexel Morgan and Company, today he is the head of the greatest private bank in America, and an establishment that has a powerful influence in Wall Street and which has many times rescued weak operators when in danger at a critical moment. Mr. Morgan's policy has always been to help his associates in the time of need and become he is generally respected and beloved in financial circles in consequence. His reputation has international, and he can honestly be classed among the great financial geniuses of the world. His business transactions are not however, confined to his own firm. He has been connected as director at various times with the Manhattan railway the New York Central and Hudson River railroad the West Shore, the New York Providence and Boston, the Mexican, the Western Union Telegraph Company, Telegraph company, the Central and South American Telegraph company, the Madison Square Garden Company, and the Manufacturing Improvement.

Mr. Morgan has been twice married. First to Amelia, daughter of John Pemberton Sturges of New York, and second to Frances, daughter of Charles Tracy of New York. He has a family of four children, Louisa Pierpont, John Pierpont, Jr., Juliet Pierpont, and Anne Tracy. He is very popular socially, a great patron of the fine arts and a public spirited citizen. Among the many clubs and social organizations that he belongs to are the Union, Knickerbocker, Union League, Metropolitan, Century, Lawyers', Tuxedo, Racquet, Riding, Players', Grolier, and Jekyl Island clubs, and the Metropolitan of Washington. He has always been a most enthusiastic yachtsman, and many of the international cup races have been due to his public spirit and liberality. He is a member of the New York, Corinthian, and Seawanaka Yacht clubs.

Among the names most prominent in social and financial circles there are none that take precedence of the Belmonts. August Belmont, born in Alzey, Prussia, December 16, 1816, was the son of a banker and landed proprietor. At an early age he entered the employ of the Rothschilds at Frankfort, and after a careful training was sent to Naples, subsequently taking charge of the Rothschild branch in that city. In 1837, at the age of twenty-one, he came to the United States on an important mission: the settlement of the affairs of the Rothschilds New York branch, which had suspended during the panic of that year. Though scarcely more than a boy, he rapidly adjusted himself to the new conditions and within a short time after his arrival began business as a banker on his own account, while continuing to manage the interest of the Rothschilds.

August Belmont was destined to play an important part in the history of his adopted country. Energetic, resourceful, resolute, and sagacious in judgment, he soon forged to the front in any line of effort which engaged his interest and attention. His success as a financier brought him international

reputation and his advice and counsel were sought by the nation's executive and by eminent men throughout the world. In the Letters, Speeches and Addresses of August Belmont, a work which was privately printed in 1890, appears the correspondence which passed between Mr. Belmont and President Lincoln, Seward, Chase, Sherman, Adams, Lord Dunfermline, Baron Rothschild and others, indicating the influence Mr. Belmont exercised over the affairs of the nation and his part in the shaping of momentous political events during the trying years of the civil war.

He early identified himself with the Democratic Party, of which he became an acknowledged leader. That his ability and distinguished service were recognized is evident from the many posts of honor accorded him during his political career. In 1844 he was made consul-general for Austria, but this office his conscience would not permit him to retain, for at this time Hungary was being crushed by a military despotism. He was appointed Charge d'Affaires and later minister resident at the Hague, where his services in connection with an important consular convention were especially valuable.

On his return to the United States in 1858, after a seven years' term, he received the special thanks of the state department. In 1860 he accepted the chairmanship of the national democratic committee and occupied this position for a period of twelve years. August Belmont was not alone prominent in politics and finance. Many sided, he was a power in other and lighter channels. For years he was a social leader of New York. He was a great patron of the fine arts, finding time to select for his private collection some of the finest masterpieces then owned in this country. He was also a lover of the turf, owning many blooded animals and having the honor of acting as president of the American Jockey club for twenty years.

He married the daughter of Matthew Galbraith Perry, brother of Commodore Oliver Hazard Perry, the naval hero. To them were born six children, of whom four were living at the time of Mr. Belmont's death in 1890: Perry, August, Oliver Hazard Perry, and a daughter, Rica, who married S. S. Howland.

Philadelphia ranks among the first cities in the world in wealth and culture, and the names of many of America's distinguished men have been associated with the growth and prosperity of the Quaker city. Men like Franklin and Girard, and in later days George W. Childs, Benjamin H. Brewster, M. W. Baldwin, William Cramp, John Wanamaker, Thomas A. Scott, Hamilton Disston, A. J. Drexel, William Pepper, Thomas Dolan, P. A. B. Widener, W. W. Gibbs, William L. Elkins, Robert A. Foerderer, Clement A. Griscom, and their contemporaries, have all contributed in their time to the upbuilding of the city.

The career of John Wanamaker is an example for the youth of America, and in fact for the world at large. By his own industry he has risen from an errand boy in a book store to be the greatest merchant in the greatest manufacturing city in the United States, and a trusted adviser in the councils of the nation. John Wanamaker's ancestors came to America about 1730. They were Palatines who left Germany to escape religious persecution, settling first in Pennsylvania and subsequently in Indiana. John Wanamaker, his grandfather, was a farmer, and at his death his three sons returned to Philadelphia. John Nelson Wanamaker married Elizabeth D. Kokersperger, and their eldest son is the present merchant and statesman. He was born in Philadelphia July 11, 1837, and educated at the public schools. When fourteen years old he started on his business career as an errand boy in a book store for the small weekly wage of one dollar and a half. Soon after his family moved again to Indiana, but returned to the Quaker city in 1856. Young John then became a salesman in a retail clothing store, and he managed to save a small sum. On the day that the gun from Sumter announced the beginning

of the civil war, Wanamaker started in business with his brother-in-law, Nathan Brown, as retail clothiers. The firm was Wanamaker and Brown, and the capital was $3,500. The small store was on the site of what is now Oak Hall, one of the largest clothing establishments in Philadelphia, and still known as Wanamaker and Browns.

In 1869 John Wanamaker opened a general department store on Chestnut Street, and in seven years the business became so large that he acquired the old Pennsylvania Railroad station on Market Street, and became master of an immense store running through from Chestnut to Market Street. Here the business became world renowned, the sales now amounting to $20,000,000 a year and the business giving employment to over 5,000 people.

In 1893 he opened the great store in New York of the late A. T. Stewart, and he is one of the largest merchants in his line of business in the world. Apart from his great business connections Mr. Wanamaker has always been an active and public-spirited citizen, and has been a liberal benefactor to his native city. He was a member of the finance committee of the Centennial exposition, was the first paid secretary of the Young Men's Christian association and is foremost in all good works for the benefit of his fellow-citizens. Politically he is an independent republican and was active in helping to elect Benjamin Harrison to the presidential chair in 1888. His great services were rewarded with a seat in the cabinet as postmaster-general, his term of office being distinguished by a marked improvement in the postal service.

In addition to his business and political activity Mr. Wanamaker has always been strongly religious. In 1858 he organized a Sunday school at South and Twentieth streets. It began in a humble way, but is now one of the finest churches in Philadelphia, with schools teaching over 3,000 scholars and employing 200 teachers and officers. Mr. Wanamaker conducts the services personally, and when a cabinet minister in Washington he came over every Sunday to preside at his church.

Mr. Wanamaker married the sister of his partner, Nathan Brown, and he has a large family. He resides in Philadelphia, and is an influential member of the Union League club of that city.

Philadelphia has been foremost in the development of street railroads and the extension of that interest has evolved a remarkable group of financiers, among them P. A. B. Widener, Wm. L. Elkins, and Thomas Dolan.

Peter A. B. Widener was born in 1834 in the city in which he made his fortunes. His people were in moderate circumstances, and after receiving his education in the public schools, young Widener was for a time employed as a “printer’s devil,” afterwards learning the meat business. Taking an active interest in politics, he became prominent in the Republican Party, and in 1873 was selected to serve as city treasurer. Two years later he became identified with street railroad enterprises, acquiring with others a controlling interest in an important system.

The skill, sound judgment, and executive capacity of Mr. Widener and his associates resulted in the signal success of the undertaking. The city's street railroad service was transformed, the public securing increased conveniences and the lines yielding satisfactory profits. The result of the Philadelphia venture encouraged the development of the street railroad service in other cities, until Mr. Widener and his associates now practically control the street railroad lines of New York, Chicago, Baltimore, and Pittsburg and are known throughout the country as "traction kings.”

The success of Peter A. B. Widener is largely the result of hard work. Beginning with nothing, he fought his way to the top and won the confidence and respect of his fellow men. It is said of him that no matter how small his income in the years of his young manhood he made it a rule to save at least a part of his earnings.

Mr. Wideners collection of paintings is reputed the finest private collection in the United States and one of the finest in the world. The number of choice and valuable paintings in the collection is a revelation to art lovers, who find art treasures by Titian, Da Vinci, Rubens, Rembrandt and other great masters in the gallery to an extent rarely seen outside of the great museums of Europe.

Mr. Widener married in 1858 H. Josephine Dunton, a woman who became noted for her unostentatious charities and whose death was mourned not only by her husband but by many who for years had been the recipients of her help and bounty. In memory of his wife, the city of Philadelphia received from Mr. Widener his fine mansion on Broad Street as a gift for the use of the free library. Of Mr. Widener's immediate family two sons are now living, George D., the second son, married a daughter of William L. Elkins and is associated with his father in the management of important enterprises.

Among railroad magnates William Lukens Elkins stands in the front rank. He is interested in surface roads in many of the large cities of the Union and is an eminent financier. Mr. Elkins' family came over from England with the Puritans, and the members have ever since been prominent in commerce, finance, law, and affairs of state. His father was George W. Elkins, a pioneer paper manufacturer of Philadelphia. William was one of a very large family and was born May 2, 1832; he was educated in the Philadelphia public schools, beginning life as a clerk when fifteen years of age. In 1852 he started with William Saybolt in the produce and shipping business. In 1861 Mr. Saybolt retired and young Elkins turned his attention to oil. He soon became a power in the oil market and in 1872 was one of the organizers of the Standard Oil Company.

He went into the development of street railroads with characteristic energy, and soon acquired large holdings in lines throughout the country. He brought about the organization of the Philadelphia Traction company, of which he is a director. He is also a director of the Metropolitan Traction Company of New York, the West Side and North Side Traction Company of Chicago, the Baltimore Traction company, and the Pittsburg Traction company. He is also one of the organizers and director of the United Gas and Improvement Company, the Edison Electric Light Company, the Continental Railroad company, and the Pennsylvania Heat, Light and Power company, a trustee of the Girard estate, and a director of the Pennsylvania railroad.

Mr. Elkins owns over 3,000 houses in Philadelphia and is among the largest landholders of that city. He has a handsome residence on North Broad Street and one of the finest art galleries in the United States. In politics he is a republican, and was a commissioner from Philadelphia to the Vienna exposition. He married Miss Louise Broomall, a celebrated beauty, and has a family of two sons and two daughters, George W., William L., Jr., Eleanor, wife of George D. Widener, and Ida, wife of Sydney F. Tyler.

Thomas Dolan has won a place among the leading textile manufacturers of the world. Born in Montgomery County, Pennsylvania, October 27, 1834, he went to Philadelphia when a boy and was educated at the public schools. His first business venture was as a clerk in a fancy knit goods and

hosiery manufactory. For ten years he worked steadily, mastering every detail of the business, and in 1861 started for himself in a small way at the corner of Hancock and Oxford streets, Philadelphia. He prospered, and in 1866 began the manufacture of Berlin shawls. In 1872 Mr. Dolan changed the business to manufacturing worsted material for men's wear, and subsequently fancy cassimeres and ladies cloaking materials. In 1882 he decided to produce only men's wear, and formed a corporation known as Thomas H. Dolan and company, and built the Keystone Knitting mills, a large factory in the city of large factories. His associates in the business are Rynear Williams, Jr., Charles H. Salmon, and Joseph P. Truett, all of them prominent Philadelphia merchants.

Mr. Dolan has always identified himself prominently with the knit goods business. He is president of the Quaker City Dye Works company, the Philadelphia Association of Manufacturers of Textile Fabrics, and the Textile Dyers' association; vice-president of the National Association of Wool Manufacturers and of the Union League club of Philadelphia.

He is also president of the United Gas Improvement Company, and a director of the Philadelphia Traction company, the Brush Electric Company, and the University hospital; a trustee of the Pennsylvania Museum of Art, and trustee and promoter of the School of Design for women. In fact, he is connected with every institution that benefits Philadelphia and the community at large.

Mr. Dolan is a republican in politics and was chairman of the advisory committee during Mr. McKinley's first campaign, contributing largely to his election. He has several times refused the nomination for mayor of Philadelphia. His town mansion is in Rittenhouse square and he belongs to many clubs and social organizations, being president of the Manufacturers' club and a member of the Wool club of New York.

Alexander Johnston Cassatt, civil engineer, and president of the Pennsylvania railroad, was born in Pittsburgh, December 8, 1839. He was educated at the University of Heidelberg, finishing at the Rensselaer Polytechnic, Troy, New York, and taking his degree as a civil engineer in 1859. His first venture was the building of a line of railroad through Georgia. At that time politics ran high in the south, and just at the outbreak of the war the young engineer came north . He took a position as rodman for the Pennsylvania railroad, remaining with that corporation until 1882. He steadily worked himself to the top. In 1863 he was fourth assistant engineer of construction, connecting the Pennsylvania, Philadelphia and Trenton roads. From 1864 to 1866 he was resident engineer in charge of the middle division of the Philadelphia and Erie. Colonel Scott soon saw the ability and industry of the young man, and he was made superintendent of motive power on the Philadelphia and Erie, subsequently becoming superintendent of the Pennsylvania railroad, with residence at Altoona. He held this position for four years, and in 1871 became general superintendent of the above road, and general manager of the lines east of Pittsburgh. Mr. Cassatt changed his residence to Philadelphia, and in 1874, on the death of J. Edgar Thompson, he was appointed third vice-president, becoming on June 1, 1880, first vice-president.

Mr. Cassatt was always a hard worker for the consolidation of the large number of independent lines, doing a great share of the task of creating the great Pennsylvania system. In 1882 his continuous labors necessitated a rest. He retired from office becoming a director of the road, and making an extended tour through Europe. In 1885, on his return, he was appointed president of the New York, Philadelphia and Norfolk, and in 1891 president of a syndicate to build railroads connecting North and South America. Mr. Cassatt, despite his steady application to business, found time to devote

himself to sport of all kinds. He owns a large stock farm and is well known as the manager of the famous Chesterbrook stud. His country seat is "Cheswold" at Bryn Mawr. In 1898, on the death of Frank Thomson, he was made president of the Pennsylvania railroad, and reached the highest point of his career. He is the chief executive and patron of the Philadelphia Coaching club, the Merion Cricket club, the Radnor Hunt, and the Philadelphia Horse Show association, besides being one of the governors of the Monmouth Park and Coney Island Jockey clubs. Socially he is very popular, and he belongs to the Union, New York Yacht, Turf and Field and Country clubs of New York City, and the Philadelphia and Rittenhouse clubs of the Quaker city. His eldest son, Robert Kelso Cassatt, married Miss Minnie Drexel Fall, and he thus became connected with the most exclusive and wealthy Philadelphia families.

American shipping interests owe much to Clement A. Griscom. Born in Philadelphia in 1841, the descendant of a family which has been identified with the history of the city since the seventeenth century, he inherited traits of character which enabled him to take rank among the prominent men of the day. His first occupation proved congenial and determined his future career. Entering the employ of Peter Wright and Sons in 1857, he was at the age of twenty-two admitted to partnership. To better fit himself for his calling he studied marine architecture, and was the first president of the society of Naval Architects and Marine Engineers. One of the founders of the International Navigation company, he became vice-president and later president of the company, which controls and operates more tonnage in the transatlantic trade than any steamship company in the world. The old Inman line was purchased for the company in 1886 by Mr. Griscom, and he subsequently contracted for the palatial steamships New York and Paris. Through his energy special congressional legislation was secured which permitted these ships to sail under American registry. An important event was the placing of the contracts for the ocean liners St. Louis and St. Paul, which were awarded by Mr. Griscom to the Cramps. The result proved that his confidence in the ability of American ship builders to equal the work turned out by any foreign nation was well founded. President Cleveland attended the launching of the St. Louis and the ship was christened by the first lady in the land.

In the Spanish war the United States government secured the use of several of the company's ships, including the Paris and St. Louis, and these played an important part in the naval engagements, thus attaching to the boats a historic interest.

Notwithstanding the vast responsibilities connected with the steamship enterprises of which he is the head, Mr. Griscom is active in many other lines. He is a director of the Pennsylvania railroad the Bank of North America, Fidelity Trust and Safe Deposit Company, and other enterprises. He was also one of the organizers of the National Transit Company and its president for several years.

In 1889 Mr. Griscom was a delegate to the International Maritime conference for revising the Rules of the Road at Sea, twenty-eight nations being represented. He was also honored by being made an associate member of the British Society of Naval Architects, an honor conferred on but three others, including the Grand Duke Constantine of Russia, Lord Kelvin of England and DeLome of France.

Mr. Griscom married Frances Canby Biddle, daughter of William C. and Rachael Biddle, and has five children Helen Biddle, Clement Acton, Jr., Rodman Ellison, Lloyd Carpenter, and Frances Canby. His country house, “Dolobran,” is near Haverford college, on the Pennsylvania railroad.

Philadelphia has always been a center of manufacturing prosperity, and in its continually increased development from year to year, with modern methods of concentration, a large number of its successful merchants and manufacturers have been brought into public prominency.

Among the many noted manufacturers in the Philadelphia of today is Robert H. Foerderer, leather manufacturer. He is of German parentage, and was born at Frankenhausen, Germany, May 16, 1860, while his parents were sojourning in Europe. Edward Foerderer, his father, early in life emigrated to America, became a resident of Philadelphia and successfully established himself in business as a morocco manufacturer; subsequently visiting Frankenhausen, where he married and returned with his bride to Philadelphia. Their third child, Robert H., was educated at public and private schools, but during his sixteenth year his intense desire for a business life was gratified by his father placing him as an apprentice in his morocco factory. From that moment the boy mapped out his own course, onward and upward, and successively every line of detail work in leather manufacturing was mastered, and his majority found him fully qualified to enter that business for himself. In 1885 he started in the business of dongola leather tanning in a factory building on Randolph Street, 36 by 125 feet, four stories in height and with a capacity of about 7,500 dozen skins a year. It was here that his attention was called to a new process of tanning, not then successfully applied by its discoverer, but of which he obtained control and which was destined to afford him a field for the exercise and tenacious development of his strong, native executive ability and of his hard-earned education as a tanner. For months, by day and night, he studied and experimented with the process until full success rewarded his work and he had found and applied what was lacking. He then announced his trade-mark of "Vici Kid," on a horseshoe emblem, and today that product is a commodity in all the markets of the world.

His business soon demanded new quarters, and with good foresight he removed to Frankford, a growing suburb of the city, where his manufacturing plant now covers over twenty acres of ground, employing upwards of four thousand people, and its capacity being 100,000 goat skins daily turned into "vici" kid shoe leather. Business success, so rapid and pronounced, with its diversified collateral interests, demanding and receiving close study of ever-changing questions of transportation, commercial supply and demand, financial and other problems, involving consideration of public needs and benefits as well as private necessities, inevitably attracted attention and favorable comment. Mr. Foerderer had never sought or held public office, yet always maintained an active interest in his party politics and good government. Recognizing the ability and integrity displayed in the conduct of his private affairs, the republican state convention of 1900 at Harrisburg nominated Mr. Foerderer for congressman-at-large, and deemed him exceptionally fitted for the duties of that position.

Mr. Foerderer is of strong home inclinations, modest and affable in deportment, and is a student and close observer of all public questions. He is an active member of the Union League, Manufacturers, Columbia, and other clubs; a member of the Philadelphia Bourse, Trades League, Commercial Museums and similar institutions; a mason of high degree, and is a director of the Tenth National bank, the Columbia Avenue Savings and Trust Company, and others, and finds time to give personal aid as a member of several strong political clubs. In New York and Boston Mr. Foerderer is always welcome and is a member of the Manhattan and New York clubs of New York, and the exclusive Algonquin of Boston. He has an elegant city home on Broad Street, but resides the greater part of the year at Torresdale, where he has a fine mansion with handsome grounds on the bank of the Delaware River.

The Gibbs of America are descended from an old Devonshire family, whose younger branches emigrated from England to America about 1625, settling first in Windsor, Connecticut, and afterwards in Rhode Island. They became prominent citizens of their adopted country from the first Giles Gibbs was a freeman of Dorchester, Connecticut, in 1633, and a selectman in 1634.

Since that time scions of the family have been warriors, lawyers, scientists, antiquarians, and important members of any society with which they may have been connected. The Gibbs collection of minerals, now in Yale College, is as yet unequalled by any collection in the country. William Warren Gibbs was born in the village of Hope, Warren County, New Jersey, March 8, 1846. His parents were Levi B. Gibbs and Ellen Venatta, who was a sister of the late Jacob Venatta, a distinguished New Jersey jurist, and at one time attorney general of that state. Mr. Gibbs' career has been an eventful one. He began a poor boy, and despite several setbacks and by dint of hard work, honesty and perseverance, he has succeeded in reaching the uppermost round of the ladder leading to success. Up to the age of fourteen he was educated in the public school of his native village. He then began his business career in a grain, flour, and feed store in Newark, New Jersey. In a year he became clerk in a general country store, and two years later found him holding a responsible position in a large grocery concern at Hackettstown, New Jersey. Here he stayed for eight years, and here he developed that great financial ability which was to lead him to fame and fortune later on in life. When he was about twenty-three years old he became a partner in the business at Hackettstown; but in 1871 his partner died and he closed out the business. By this time he had managed to save a few thousand dollars and he started for New York, the Mecca of every ambitious youth. Here he embarked in the retail dry-goods business, and struggled along until 1873, when he organized the firm of Bauer, Gibbs and Company, wholesale grocers. Want of capital, however, hampered his chances, and in 1875 he withdrew from the firm almost as poor as when he started in life. His youth, energy and aggressiveness were not to be suppressed. He studied the scientific journals, being strongly imbued with the instincts of his distinguished ancestors. He formed a friendship with Ferdinand King, the inventor and holder of a patent for making gas from petroleum. The young grocer and student soon became interested, a corporation was formed entitled the National Petroleum and Gas Company of New York, and a contract was entered into to build gas works in a small country town. Success was achieved only by close application shrewdness and constant attention. The merits of his gas reached the ears of a thrifty New Englander, and Amos Paul, agent of the Swampscot Machine Company of South New Market, New Hampshire became interested, and an arrangement was entered into to build works for the new system. Mr. Gibbs was the prime mover and organizer of all the works, and the National Petroleum Gas Company of New York soon became a flourishing and prosperous corporation, In the first seven years over one hundred gas works were erected, all over the country, from Maine to California, and the grocery boy was on the high road to the millionaire goal. The manufacture of the gas necessitated the purchase of immense quantities of petroleum oil, and in this manner Mr. Gibbs made the acquaintance of the heads of departments in the Standard Oil company.

His ability was soon appreciated and he succeeded in attracting the attention and interest of the great capitalists of the corporation. The United Gas Improvement Company was formed in 1882, Mr. Gibbs being appointed general manager. In seven years he made the company one of the most important in the United States. Then he launched out into other ventures. He contracted to construct the Poughkeepsie Bridge and the roads connecting with it east and west. He became chairman of a pool to acquire the control of the Reading Railroad and he soon became involved in a troubled sea of finance

and speculation. In 1890 the Baring failure brought matters to a crisis, Mr. Gibbs being left with the loss of his whole fortune and an indebtedness of about three millions in cash added to an interest account of one hundred and eighty thousand dollars a year. Nothing daunted, he set to work to get back his lost fortune and to pay his debts. He had experience, great knowledge, and had learned caution. After eight years of hard work he had paid off all his liabilities and became possessed of a fortune larger than he had ever had before, today he is president, director, or manager of more than twenty prosperous corporations and he is looked up to as among the princes of finance in the country.

Mr. Gibbs married in 1872 Frances A. Johnson, daughter of George W. Johnson, one of his old employers. He has a family of six children and resides on Walnut Street, Philadelphia.

Miscellany

Among other names prominent in the social, financial and industrial life of Philadelphia are J. Edward Addicks, William C. Allison, Joseph B. Altemus, John T. Audenreid, F. Wayland Aver, Amasa P. Bailey, Daniel Baird, Matthew Baird, Joseph A. Ball, George Barrie, Prof. John Rhea Barton, Daniel Baugh, Clarence Bement, William B. Bement, R. Dale Benson, Luther S. Bent, C. William Berger, John F. Betz, Alexander Biddle, Hon. Craig Biddle, Spencer F. B. Biddle, Kenneth M. Blakiston, Samuel T. Bodine, Chas. Boyd, John A. Brill, Thomas Bromley, James C. Brooks, Alexander Brown, T. Wistar Brown, John C. Bullitt, George Burnham, William Burnham, Dr. Charles Cadwalader, Seth Caldwell, James D. Campbell, George Carpenter, William T. Carter, John H. Catherwood, William A. Church, Isaac H. Clothier, Henry T. Coates, George H. Colket, Benjamin B. Comegys, John H. Converse, Jay Cooke, Caleb Cope, Samuel F Corlies, Brinton Coxe, Charles H. Cramp, Henry W. Cramp, Samuel H. Cramp, William M. Cramp, John K. Cuming, Cyrus H. K. Curtis, Henry L. Davis, Henry M. Dechert, Evans R. Dick, James E. Dingee, William Disston, Horace A. Doan, John H. Drake, Thomas Drake, Robert C. Drayton, George W. C. Drexel, Joseph Drexel, John G. Dunn, Frederick C. Durant, Edmund P. Dwight, George H. Earle, Jr., William H. Eisenbrey, Chas. E. Ellis, John R. Fell, Edgar C. Felton, Wm. W. Finn, Jr., Edwin H. Fitler, Sr., George N. Flagg, Adam Forepaugh, Wm. W. Foulkrod, L. G. Fouse, Frederick Fraley, William W. Frazier, Samuel H. French, J. C. Fuller, John Gardiner, John H. Gay, Joseph M. Gazzam, John Howard Gibson, Jos. E. Gillingham, John P. Green, Henry S. Hale, Charles H. Harding, Joseph S. Harris, J. Campbell Harris, George Leib Harrison, William H. Harrison, William F. Harrity, Richard Hecksher, William H. Heisler, Charles W. Henry, Chas. E. Hires, Johns Hopkins, Henry H. Houston, William J. Howard, Gen. Henry S. Huidekoper, Wm. A. Ingham, Jas. A. Irwin, William Ivins, Dr. David Jayne, John G. Johnston, William H. Kemble, Edward C. Knight, John D. Lankenau, Thomas L. Leedom, Edward B. Leisenring, J. B. Lippincott, Alexander K. McClure, William MacKellar, Wayne MacVeagh, Dr. S. Weir Mitchell, Chas. C. Moore, Effingham B. Morris, Henry Morris, Albert Pancoast, Chas. T. Parry, Gen. Robert Patterson, Robert E. Pattison, Edward M. Paxson, George Philler, Thomas Powers, J. Sergeant Price, Evan Randolph, William F. Read, Jacob E. Ridgway, Algernon S. Roberts, Percival Roberts, Chas. H. Rogers, Benjamin Rowland, Peter A. Schemm, Lewis A. Scott, William Sellers, Henry W. Sharpless, Robert Shoemaker, Joseph Singerly, John B. Stetson, John Wesley Supplee, Chas. M. Swain, Frank Thomson, Richard A. Tilghman, Charlemagne Tower, Alexander Van Rensselaer, William Weightman, Henry D. Welsh, Cornelius N. Weygandt, Joseph Wharton, Dr. Edward II. Williams, Edward S. Willing, Isaac J. Wistar, Howard Wood, John Wyeth.

Art and Architecture

Art and Architecture: The Wealth of Art and the Art of Wealth

Where there not qualities as well as quantities of wealth, the world would not be half as rich as it is. Wealth often presents itself in a repulsive form, when it may be regarded as an essential among the utilities; at the same time there is a form of wealth dependent for its value on beauty alone. And the more elevating and refining the quality of wealth, the more beneficial it is to the human race. In the common comforts and conveniences of life, the useful arts cannot be ignored, but the fine arts are as a rule alone refining.

In all nature, as Ruskin remarks, there is a beauty addressed to the eye alone; yet what impresses us most is often a very small portion of that beauty. A landscape, for instance, may be composed of rich meadows and beautiful flowers, of sparkling streams and majestic woodlands, above which are the many tinted hues of a sunset sky; yet that on which we gaze most intently may be merely "a thin grey film on the extreme horizon, not so large in the space of the scene it occupies as a piece of gossamer on a near at hand bush, nor in any wise prettier to the eye than the gossamer; but because the gossamer is known by us for a little bit of spider's work, and the other grey film is known to mean a mountain ten thousand feet high, inhabited by a race of noble mountaineers we are solemnly impressed by its aspect, though all the while the thought and knowledge which cause us to receive this impression are so obscure that we are not conscious of them."

But he who would interpret nature aright should not attempt to interpret her all at once, any more than he should place on a single canvas the snows of a winter and the verdure of a summer landscape; for the moods of nature, fickle as a woman's, are seldom exactly alike for two successive hours. Nor should there be too much of detail; for that which pleases most is not the minutiae but the sum total of what nature has produced; not the materials with which she has fashioned a landscape, but the landscape itself, as the eye is apt to see it and the soul to feel it. Take, for instance, by way of contrast, the landscapes of Hill and Corot, the former striving with infinite pains to depicture every tree and twig and leaf and blade of grass, thus ring the general impression; the latter omitting all such minor matters as would interfere with the softly intoned effects of foliage and light. In the one are the statistics, in the other is the spirit of art, though in the former there is more than mere statistics.

To the later period of the renaissance belonged Michael Angelo and his many imitators who served at least to infuse new life into the sculptor's craft. Among the French there were such men as Germain Pilou, Jean Goujon, and Barthelemy Prieur, all more or less imitators of the Italian school and later in Italy itself appeared Canova, one of the greatest masters of modern times. Thorwaldsen, Ranch, and Gibson, pupils of the latter and each one possessed of strong individuality, exercised a marked influence on Danish, German, and British sculpture, as did many others before we come to contemporary art.

It was not until a comparatively recent era that art was supposed to have any real existence outside the Latin races; yet in some respects the Dutch surpassed all other schools, and it is in Holland, Scandinavia, and perhaps in England, that modern painting shows the most decided progress.

Whether in landscapes, marines, or genre, Dutch masters, while not attaining to the glories of the past, hold their own with the foremost of European artists, though appearing perhaps at their best in simple themes; for it is in essence rather than in subject that true art really consists. In the portrayal of home life and home scenes they have no superiors. Thus, with a woman entering on her rest eternal, with him who was her husband at her side, and with little else save the bed on which the woman lies and the chair on which the man is seated, Israels produced in his 'Alone in the World' a composition that has never been excelled in the depiction of human woe. And so with Maris, with Mesdag, Neuhuys, and others, who from such unpromising subjects as windmills and canals, as cattle standing in a meadow beneath a clouded sky, or the surge of ocean breaking at the base of sand-dunes, can work out effects of singular beauty and sentiment.

When the purchase of the Angerstein collection was under the consideration of the British parliament, Sir George Beaumont wrote to a friend who had influence with its members, "It is my belief that such works as the Apollo, the Venus, the Laocoon, etc., are worth many thousands a year to the country that possesses them." Later he declared in the commons, "Buy this collection for the nation and I will give you mine." He kept his word, presenting his collection, worth $375,000, as soon as there were galleries ready to receive them.

Speaking of the dismantling of the Louvre gallery in 1815, an eyewitness has in effect the following. On going up to the door of the Louvre, I found a guard of 150 British riflemen drawn up outside. I asked one of the soldiers what they were there for. "Why, they tell me, sir, that they mean to take away the pictures," was the reply. An officer dropped his men in files along this magnificent gallery, until they extended from its entrance to its extremity, and then the work of removal was commenced, porters making their appearance with barrows and ladders and tackles of rope. From that moment the collection might be considered as broken up forever; its orderly aspect disappeared and it, assumed the melancholy and desolate air of an auction room after a day's sale. It seemed as if a nation had been ruined through improvidence and was selling off. The removal of the statues was later in commencing, and took up more time. I saw the Venus, the Apollo, and the Laocoon carted away and these might be, deemed the presiding deities of the collection. The French could not believe that their enemies would dare to deprive them of these sacred works, for it appeared to them impossible that they could ever be separated from France; but nevertheless it was done. One afternoon I stopped longer than usual to gaze on the Venus, and I never before was so much impressed with its superiority over all the rest. Returning the next morning, I found that the pedestal on which it had stood for so many years, the pride of the metropolis and the delight of every observer, was vacant. It seemed as if a soul had taken its flight from a body.

What Polygnotus was to ancient Greece, that was Giotto to the Italy of the middle ages, breaking through the cherished traditions of the Byzantine school, with its rigid formalities, and presenting instead the truths of nature thus, inaugurating what is termed the renaissance, which later displayed itself in countless forms. Soon after the death of Titian was expended the force of this newborn genius, never perhaps again to reappear; for the Italian painter of today can neither approach the achievements of the past, nor create a new style in keeping with modern tastes.

For the most part, whatever there may be of excellence is not Italian, but merely an adaptation from other schools; so that with few exceptions, their pictures, however ambitious in theme, are weak in execution.

As in poetry is found the highest art, so in art we here and there encounter poetry. Says The Painter of Florence:—

There once was a painter in Catholic days,
Like Job who eschewed all evil;
Still on his Madonnas the curious may gaze
With applause and amazement; but chiefly his praise
And delight was in painting the devil.

They were angels compared to the devils he drew,
Who besieged poor St. Anthony's cell;
Such burning hot eyes, such a luminous hue,
You could even smell brimstone, their breath was so blue;
He painted his devils so well.

And thus the Orlando Furioso of Ariosto:—

Lo! Leonardo! Gian Bellino view,
Two Dossi, and Mantegna reached by few,
With these an angel, Michael, styled divine,
In whom the painter and the sculptor join;

Sebastian, Titian, Raphael, three that grace
Cadora, Venice, and Urbino's race;
Each genius that can past events recall
In living figures on the storied wall.

In the epitaph of Hubert van Eyck, the soul of the artist is laid bare:—

Take warning from me, ye who walk over me. I was as you are, but am now buried beneath you. Thus it appears that neither art nor medicine availed me. Art, honor, wisdom, power, affluence are spared not when death comes.

I was called Hubert van Eyck; I am now food for worms. Formerly known and highly honored in painting, this all was shortly turned to nothing.

It was in the year of our Lord 1426, on the 18th day of September, that I rendered up my soul to God in suffering. Pray God for me, ye who love art, that I may attain to his sight. Flee sin; turn the best; for ye must follow me at last.

Art and Architecture: Origin, Scope, and Development of Art

Perdita: ***I have heard it said,***
There is an art which shares with great creating nature.

Polixexes: ***Say there be;***
Yet nature is made better by no mean.
But nature makes that mean; so. o'er that art
Which, you say, adds to nature, is an art
That nature makes.
There is an art
Which doth mend nature,—change it rather; but
The art itself is nature.

—The Winter's Tale

Defined in its widest sense, art is the power of doing something that we are accustomed to distinguish from nature s handiwork, whether it be the fashioning of a garment or the molding of a statue of the Olympian Jove. While all things created, or all of which we have any knowledge, may be classed under the terms nature and art, it is often difficult to distinguish between the two, especially since nature, properly speaking, includes art, just as the greater includes the less, the one being merely the application of the other's potencies to certain ends. Though man may use and direct the properties of matter, the united energies of mankind cannot add to them in the smallest degree, even the intelligence, taste, and muscular force which contrive, design, and execute being themselves the productions of nature, which, as John Stuart Mill remarks, is "the collective name for all facts, actual and possible."

Whether in forethought, plan, or constructive skill, nature is herself the greatest of all artificers; for as was remarked by the founder of the Stoic school of philosophy, "That which in the works of human art is done by hands, is done with much greater art by nature." The best of artists are those who have followed most closely in her footsteps, not with slavish imitation but as a student follows some great master, reproducing, so far as in him lies, the spirit and not the statistics of that which nature has fashioned. It was through their susceptibility to nature's impressions, fostered by careful training, that in sculpture, and to a certain extent in painting, the Greeks excelled all other artists who came before or after them, still serving as models for those who would make of art a language intelligible to the people,—and this is one of its highest functions.

"Is painting simply an imitative art?" asked Carolus Duran in a self-answered question to one of his student classes. "No it is above all an art of expression. There is not one of the great masters of whom this is not true. Even those who were most absorbed by outward beauty understood that they neither could nor ought to reproduce anything but the spirit of nature either in form or color.

Thus have these great masters interpreted nature, without attempting to give a literal translation, and this interpretation is precisely what makes the personality of each of them. Without this individual point of view there can be no really original work."

Truth, it has been well observed, is the first thing in art, and the second, and the third; but the truth is so vast that it cannot be told all at once no man ever knew the whole, and while it has many able enunciators, of it, each one emphasizing the portion that appeals most strongly to his tastes, his interests, or his temperament. Just as of the world itself, no individual knows thoroughly more than a fragment or at best a few fragments, so in the world of art, the opinions of others are only of value when considered from their own point of view, so far, that is, as they can see from the spot which they occupy on the great sphere of art.

As to the nature and scope of the fine arts, as distinguished from those which are merely useful or mechanical, there is little difference of opinion, the one administering to the sense of the beautiful and the other to the practical needs of life. Neither difficult to determine in what may be called the intermediate arts, which serve in a measure for either purpose, the part that they play in both. Yet when we search after closer definitions, we are brought face to face with a mass of opinions and speculations as conflicting and voluminous that have any arisen in the wide range of human thought.

Granted that all the arts may be classed as beautiful or useful, or as a combination of both, such questions have been propounded as What is beauty? What place do the beautiful arts hold in relation

to the universe, to mankind, and to each other? But here we are treading on the province of aesthetics, with which our theme is not concerned.

Among the Greeks, the Romans, and other nations of antiquity the fine arts were not distinguished as a separate group, the techne of the Greeks including the mechanic arts and the ingenuae arts of the Romans having also a wider application. Their classification apart under terms equivalent to fine or beautiful, as those which minister to the love of beauty and not to material needs or comforts is of much later and, somewhat uncertain date. When an art or craft fulfils both these purposes, it is only in the former sense that it partakes of the aesthetic. Thus the making of a vase, so far as it is intended merely as a receptacle for flowers or for similar use is a useful art; but its ornamentation, belongs to the decorative, or if in the form of a design executed with exceptional skill, to the beautiful arts. And so with architecture which, in providing a building suitable for shelter and accommodation comes under the province of mechanics, but in the disposition of masses, lines, and surfaces, the harmony of proportion, the contrast of colors, and the alternation of light and shade ranks as one of the fine arts. Yet the two may be so closely intermingled as to allow the architect but a narrow license; for in carrying out his conceptions of the artistic, he must never lose sight of the practical.

By common, or at least by general consent, the fine arts in their proper sense are restricted to architecture, sculpture, painting, music, and poetry; though perhaps a better definition would be to call these the greater arts, for there are many others that might be classed among minor or subordinate branches. Thus in the builder and carpenters work, or in landscape gardening, there may be much that is related to architecture and architectural decoration; the craft of the goldsmith, silversmith, jeweler, of the worker in ceramics, glass-cutting, embroidery, pattern-weaving have at least something in common with painting or sculpture, while acting and even dancing can become to a certain degree the interpretation of poetry and music. All these and scores of others are something more than mere industries or dexterities; for with the qualities of convenience and use they combine those of beauty and pleasure.

Plato, who taught that the realities of life are but the distant reflections of truer realities, declared the fine arts to be the veriest show of shows, ranking them far below agriculture, the herding of cattle, or the making of shoes; for the one, he says, produces merely semblances, while the others produce utilities. Cicero divided art into two classes; that by which something is discerned or contemplated, and that by which something is done or produced, giving geometry as an example of the former and music as one of the latter. While even in the days of Euclid geometry was rather termed a science, there are in all sciences, even in the abstract sciences, certain elements of art. Thus, understanding by geometry a collection of investigations, deductions, and problems as to the properties and measurement of space and magnitude, while this of course is science, there is also the skill in making these investigations and deductions, or in solving these problems, which, if not the art of geometry, is at least the art of the geometer. So with astronomy; when used, for example, merely as an adjunct to navigation, it is but an elementary science; when studied as in observatories, revealing more of the panorama of the universe and of the procession of the spheres, it verges closely upon the arts. So also with geology, which as an aid to the discovery of veins of gold and silver, of lead and copper, has a function very different from that which restores to us lost creations and reclothes in living forms the dry bones of species that have disappeared in the aeons of the past.

Among the principal branches of art, it is only with architecture, sculpture, and painting that are at present concerned, though minor and auxiliary branches, especially art manufactures and decorative art, will be treated in other portions of this work.

Beginning therefore with architecture as the oldest of the three, we may trace its origin to the time when men forsook their cave-dwellings and made themselves tents of skin or huts of branches and mud; not to the savage or savage tribe that first constructed such tents or huts,—for this is merely the builder's craft—but to him who first arranged the skins or branches in such fashion as to please the eye rather than to afford him shelter or personal comfort. Here is the inception of architecture considered as one of the fine arts. Even in the Paleolithic ages there also existed in some rude form both sculpture and painting. Of imitative sculpture the prototype may be found in the cave of some hunter who debarred from the chase on a rainy day, perhaps long before the Noachian era, passed the time in carving on the handle of his weapon figures of the animals he had slaughtered. As to pictorial art it is claimed by Pliny that the Egyptians were acquainted with it several thousand years before it was known to the Greeks. Be this as it may, it is generally conceded that the first attempts by any nation were in the shape of rough outlines of the human form traced on bark or stone, such as have been found among the decorations of Egyptian tombs.

Art has been termed the universal language of mankind, of which traces are to be found not only in the land of the Pharaohs and in the valley of the Euphrates, where tradition has placed the origin of the human race; not only among the mythical heroes whom Homer and Virgil describe, but in Scandinavian forests, in Celtic remains, in the mounds that tell of a bygone civilization on the banks of the Mississippi, and amid the islands of the southern seas. In these primitive forms is seen the mysterious incentive to art common to all nations that have attained to a certain degree of civilization, interpreting and giving sensible expression to their thoughts, though it may be a feeble expression; for in its higher sense the art of one nation may be traced back for thousands of years, while another may still be looking for its birth.

The process of artistic development differs but little from the series of processes employed in the composition of a single picture, save that the former is the work of nations or schools and the latter of individuals. First comes the rough charcoal sketch, so rough that only a professional artist would know its meaning, yet serving to indicate the boundaries assigned to various portions of the subject. Then follows a more careful outline, within which the color is laid on in masses, but yet with a view to the filling in of detail, the detail itself requiring several repetitions one after the other or one within the other, together with gradations of coloring, film above film, until the painting has reached the highest degree of excellence of which the artist is capable. So it is with the progress of art throughout the ages, except that here is the result, not of the conception and execution of a single workman, but of successive generations of workmen in every quarter of the world. The rude charcoal sketch of some father of art, whose lifetime is barely sufficient for the task, is followed by the various stages above described, each successive era showing an improvement in accuracy of detail and nicety of discrimination. So also it is as to the law of progress in the various branches of science.

Just as in science there is art, so in art there is a strong element of the scientific, and that in its widest sense; for in certain directions, and up to a certain point, the former is as essentially utilitarian and progressive as are chemistry or electricity. While to the genius of the artist is due whatever of the spiritual his picture may express, real progress is not in poetic or other conceptions, but in the

scientific treatment of these conceptions; and thus it is that art has developed so unequally. The renaissance period, for example, was noted for its superior methods of portraying figure, whether human or angelic, while in landscape there was no very marked improvement.

Color attained in the canvases of Titian and his contemporaries a richness and splendor that have never been excelled; yet, necessary to the rendering of truths and ideas, there were processes of which Titian knew nothing, or if he did, never used them in the expression of his art. While a painter may never become famous through being merely scientific, he is compelled in a measure to be so, because his profession calls for the application of scientific principles almost as much as do those of the architect or engineer. The true artist is ever grateful for the aids of science and docile to its teachings, for while it cannot take the place of artistic observation, it may save him from many mistakes.

Though with many subdivisions, the several branches of pictorial art may be divided into landscapes, marines, genre, portraiture, and historic paintings, the last including mythological and kindred subjects. While all of these have many admirers, landscape is perhaps the most popular, and when handled by a master's touch, the highest form; for this is what appeals most strongly to the imagination, giving to the majesty of nature the added majesty of art. Take, for instance, a picture whose theme is selected in the Bernese Oberland, as of the Jungfrau at sunrise, with all its beauty and sublimity reproduced on canvas, so far as reproduction is possible. Here it is not only the fields of perpetual snow, the glaciers and walls of granite, seamed with cascades, with ice-born rivers, or with the filmy veil of waterfalls; but emotions are thus awakened such as no other scene could stir or quicken. There is first of all the sense of infinity, mingled with awe and wonder at the work of the great artificer, together with a sense of our own insignificance, as of the grass on these mountain sides. Then there is a sense of companionship with bygone generations, which once have looked on these marvels on which we also shall presently cease to look, a sense of the unknown of life and death, suggested by this line of virgin snow blushing in the light of the morning sky.

The aim of him who would strive after perfection in painting is first, the conception and illustration of nature in its purest form; second, the blending of the natural with the ideal, so as to produce the finest impression of which art is capable. As a celebrated art critic remarks, "With such purposes in view, consisting of such a multiplicity of parts, and requiring such an uncommon assemblage of powers, mechanical and mental; of hand, of eye, of knowledge, of judgment, of imagination, and of indefatigable perseverance in study and practice, to enable a man to perform any one part with tolerable success, it can be no wonder that painting has not as yet reached the desired perfection; nor ought we to be surprised to find even the most celebrated masters materially defective in one or more of its branches, those who possessed invention having been often deficient in execution; those who studied coloring having often neglected drawing; and those who attended to form and character having been too apt to disregard composition and the proper management of light and shadow.” It is only through a combination of the qualities mentioned by the critic that the highest form of expression is attained; and to him who has riot this faculty, though the most finished master of technique, one may say as did Millet to a certain Parisian artist: "Your execution is good, and you can paint; but what have you to tell?"

As to the present condition of art, it may be said that its leading exponents are striving for improvement in technical methods and for a truer harmony of color and proportion, striving to give to their pictures the tranquility of expression characteristic of the old masters, yet with due regard to

modern conditions and discoveries, so far as they consist with true artistic aims. Now that the scientific impetus has expended its force, after increasing so largely the range of art, the painter is at liberty to devote himself entirely to these higher purposes.

But even the foremost of painters may be only too well content to equal in other vein the best achievements of the past; for the great river of art. flowing ever onward, but raising its current only at irregular intervals, may not as yet be able to rise above the mark attained in the classic and renaissance periods.

On the other hand one of the great drawbacks to improvement in art is the power of the past over the present; for the great masters of former days rule us with a tyranny that we would never endure from the living. Though nothing could be further from their desire than that anyone should slavishly imitate their works, yet because these works are of superlative excellence, they almost act as a barrier to original achievement; so that there are few among the great names of former ages that have not been misused for the restraint of modern talent and modern genius. By all means let us render due homage to the dead; but it cannot be rendered by aping their compositions as a monkey apes humanity. Could Raphael live among us in the flesh, as he does in his paintings, it would almost make him ashamed of his art to learn how he has served as a model for generation after generation of copyists. Rather should his disciple say, as did Correggio, after a close scrutiny of one of his pictures, "I also am a painter." And this, if doing the best of which he is capable, he may say without conceit, howsoever humble his sphere; for he who gave to us in 'The Transfiguration,' one of the sublimest of human conceptions, did not disdain to paint a dead elephant or to design a perfume-burner. Neither is it fair to the living nor just to the dead to restrict our admiration to the works of any one master or school; for all that is excellent is worthy to be admired, whether the work of the living or the dead. For centuries real artists have been plentiful; today they are more plentiful than ever they were, and from each one may be learned a lesson that none but he can teach so well.

As Ruskin in substance remarks, while respect for the ancients is the salvation of art, it sometimes blinds us to its ends, increasing the power of the painter while diminishing his liberty. Yet if it be among overzealous disciples an encumbrance to the inventive faculty, it also serves as a protection from modern audacity. "The whole system and discipline of art, the collected results of the experience of ages might, but for the fixed authority of antiquity, be swept away in the rage of fashion or lost in the glare of novelty."

With the increase of wealth and leisure, and the superior culture and refinement fostered by their possession, the fine arts have gradually asserted themselves among the influences that lend grace to national prosperity and add luster to a nation's glory. Without art and literature, indeed, what would become of the memory of those bright examples which stimulate to noble deeds, of the great incidents and great men whose history embodies all that is best worth preserving in the annals of the race? What is it, if not her art and literature, that gave to Greece immortality, notwithstanding the calamities of bygone ages while the commerce, and craft of the Phoenicians, who had no superiors in ancient times, belong to the forgotten past? Whether in the field of science, of invention, or of industrial development, there are few things better worth preserving than what may be expressed on a piece of painted canvas, or in a block of marble which the sculptor's chisel has touched into life.

"The only real function of art," says one of the foremost of critics "is to state a true thing or to adorn a serviceable one." While some of our finest paintings and sculptures have been purely the off spring of

the imagination, there are few who will care to take exception to the latter clause as of this definition. Though, in former ages, there are many whose sole object in life is the pursuit of the means of life, the lack of beauty, or call it decoration, whether in private home, or public hall, or sacred temple, unnoticed even in the earlier portion of the present century, has now been either remedied or regarded as an evil to be remedied. To adorn objects of common utility with artistic instead of with trade finish, is no longer considered as beyond the legitimate sphere of art, and thus it is that the decorator, formerly classed almost on a par with the mechanic, has attained to the dignity of a profession, provided he display the sense of beauty, the power of observation, the dexterity, and nicety of touch, without which there can be at best but a makeshift of art.

While sculpture may be the greatest of the arts, painting is of more general interest, at least to our modern tastes. For every piece of sculpture by the old masters there are hundreds of paintings, and these are probably viewed and criticized more widely and intelligently than when they appeared fresh from the master's brush. Yet painting is more independent of ancient models and precedents than the art of the sculptor or the architect; for the latter has been developed from historic influences which are still in a measure dominant, while the former has much of novelty, not only in subject but in method and aim. For several centuries the leading architects of Europe attempted little more than the copying of classic forms and details, and even when a reaction came, it was not in the direction of originality, such as was suitable to the needs and conditions of a progressive civilization, but rather to a still more slavish imitation of other and inferior schools.

Even at the present day we are not entirely free from such influences, and especially is this true of American architecture; for if in some countries, as in Holland and Switzerland, there is what may be termed a national style, it not as yet be said to exist in United States, where are many buildings belong to every order, and not a few that belong to no order. Yet this is better than the mere aping of antique fashions; for archaeology is not architecture, and a Gothic town-hall which may have been well suited to the Middle Ages is not adapted to nineteenth century requirements.

As in all professions, learned or otherwise, love of art is the first requisite of success. Like Ruskin's good doctor whose fee is of less consequence to him than the life of his patient, the highest reward of the artist is in the creation of the artistically beautiful. He who would live by art must first live for art. In painting and sculpture as in literature there are a thousand efforts for every accomplishment, a thousand canvases and marbles for every composition which will live as artistically excellent. While nature is the only artist to whom we can look for perfect truth and originality, he who paints from nature should combine the creative with the imitative faculty; for the true artist cannot be merely a copyist.

As to fame, a few words may here be said; for this in different degrees is necessary, not only to artists but to men in various callings and conditions of life. There are some to whom celebrity is either a birthright or achieved without effort of their own, and who need not, therefore, seek after fame as even to secure a livelihood, to say nothing of higher motives. Thus Turner is spoken of as a famous painter; but no one would speak of emperor or tzar as being famous, since fame belongs to them by virtue of their authority and rank. There are others who while they may care little for celebrity in itself, require it in a certain measure, and none more so than the artist and the man of letters, for to them it is almost a commercial necessity. It is not today as with the Florentine painters, who could find in their own city and its neighborhood patrons and admirers sufficient to satisfy their desire for

renown and reward. In single communities, and especially in small communities, there is no adequate field for intellectual work, since comparatively few can appreciate it or care to pay for it; hence a market for such work must be sought not among thousands but among millions; for neither artist nor author can hope for purchasers in any considerable number until he has first become famous.

A painter without reputation, it has been said, is like a pastor without a flock, fame being one of the conditions requisite to the exercise of his craft. Yet the works of art that find most purchasers are not those which appeal to the higher artistic faculties, but to the capabilities of small ones; and hence it is that the majority of painters do not attempt high art, but rather such as will afford them the readiest compensation for their toil and time. The depiction of faces figures, and costumes, for instance, under the excuse of some, incident which will attract attention, as in Sargent's 'Ellen Terry as Lady Macbeth.'—a full length portrait of the tragedienne in the act of placing the crown on her head—is a favorite mode of catering to the popular taste. This is excusable, for we cannot be always looking for nobility of subject, and much of the grandest in art is coupled with simplicity of theme.

Thus a peasant in the hands of Millet supplies finer art than a kaiser in the hands of a court painter; a sand-dune by Mesdag, or a canal by Jakob Maris is better than alpine range or ocean storm when treated by inferior artists. But while the subject may be simple it should not be trivial, and above, all it should not be vulgar; for in art one may always aspire but should never condescend.

Of Rosa Bonheur it is related that in order, to study animal life, she frequented the abattoirs of Paris in masculine garb, made sketches in the public streets, or wherever opportunity offered, and purchasing a sheep, kept it in an apartment adjoining her atelier until she became familiar with every portion of its anatomy. In this there was no affectation of eccentricity, but merely a desire to prepare herself thoroughly for the branch of art which she first selected as her special sphere. And here was one of the secrets of her success, a secret within the reach of all; for to possess in the memory just standards of comparison, and to possess them clearly and thoroughly, should be one of the first aims in the self-education of an artist. A figure-painter, for example, who is not thoroughly acquainted with the structure of the human body, and with its gradual changes of outline between childhood and age may give us little more than a mass of flesh and bones almost devoid of expression. In landscapes and marines one who has not closely observed the ever-shifting moods of nature, is apt to place on canvas not what nature has made but merely a caricature of nature.

The artist's eye sees nature almost with another sense; but the true artistic sight cannot exist, even in men of genius, without artistic training. To make a thorough study of any of nature's handiwork, whether a landscape, let us say, or a human being, there must first of all be a close and careful examination of the subject, and no one but an artist would care to spend day after day in grasping the details of a landscape or hour after hour in scrutinizing the features of a man. Ingres, as Alphonse Kerr relates, refused to paint the portrait of the duke of Orleans unless he were granted a hundred and fifty sittings. There are few among us who would care to undergo such an ordeal; but let us hope both artist and duke accomplished their task with becoming patience.

Religion has ever been a favorite theme with artists, and especially was this the case among nations less devoted to the worship of mammon than is the present age. Not only do religious annals afford an abundance of excellent topics, but the true artistic spirit is akin to the devotional, placing before us and bringing us into close communion with the works of the supreme artist, so that it may almost be said that art itself is a religion.

Yet it will have little to do with religious fanaticism, which, to mortify the flesh, would turn the eye from all the loveliness of earth. It is alike the privilege and duty of all, and especially of artists, to take pleasure in Gods works, to find their greatest delight in the beauty that is everywhere around them; hence, with the superstition that condemns all pleasure as sinful art can have no sympathy.

As the range of art was never so wide as at the present day, so never perhaps was there so much of interest in its achievements, or so much of sympathy with its spirit; for its unknown lovers are far more numerous than its more demonstrative patrons. With aristocracy, apart from the question of patronage, it has at least this in common, that both tend to refinement, elegance, and grace, portrait and figure painters preferring above all other subjects the true-born aristocrat. With democracy it has little affinity; for while some of the best and highest art takes for its theme the lives and struggles of the poor, they are not as a rule inviting topics to the brethren of the craft. But art is neither aristocratic nor democratic, nor is it restricted, though it may in a measure be classified by nations and schools. Rather is it universal; and of this property so often ascribed to it, there is no stronger evidence than the obliteration of all distinctions as to rank or wealth among those who, possessed of the artistic spirit, meet on the common plane of art. Not that I would here suggest any necessary connection between wealth and art, except that wealth is in a measure necessary to the growth and even to the existence of art, just as it is to the development of culture and civilization. A cottage may be more pleasing to the artists eye than a palace of a thousand chambers, a peasant's garb than an emperor's robes of state, and a model in common clay than a statue in purest gold.

The demand for works of art, as I have said, was never so great as at the present time, and hence in part it is that art, like journalism, no longer guides but is guided by public taste and opinion, and to these the artist must in a measure conform. When there is no desire for a certain class of pictures, as for those which treat of historic or mythological subjects, let us say, the painter, though he excel in these branches, may be forced to betake himself to other fields, in which perhaps he has many more skilful competitors; for few are perfectly at home in several departments. Reynolds, Gainsborough, and Ingres, for example, were finished masters of portraiture and figure painting; yet the landscapes which they drew as a setting to their figures were little better than amateur workmanship, while the figures which Corot inserted in his exquisite landscapes seldom rose above mediocrity. Whatever his sphere, he who is capable of producing that which is excellent will not want for encouragement, though for a time it be not appreciated; nor is it necessary that his productions should have the authority of precedent. To surpass in lines where others have surpassed is well; but to surpass in work for which there is no precedent is better; for next to truth in art is originality. One may admire the pure ideality of the Greeks, the beauties of the renaissance masters or the realism of the moderns, without spending his life in slavish imitation of any of them; for no one can become really great until first he has learned to rely on himself.

While there is originality of treatment, a higher form of originality consists in what the Greeks called idea, meaning not merely a thought but an image or object conceived by the mind, as when Raphael conceived his Madonnas or Correggio his 'Diana Returning from the Chase.' Nor is it necessary that art should serve any moral purpose or attempt to convey any moral lesson; on the contrary, attempting to do so, it often sinks below the level of art in its truer sense. A drunken satyr, for instance, may be much better art than Cruikshank's series entitled 'The Bottle,' which, though extremely popular and many times reproduced, are little better than so many temperance lectures on canvas. In the figure paintings of Rubens, whom his time was considered the high-priest of form,

there is much that administers to the lust of the flesh; but even in his sacred subjects there is little suggestive of religion or morality, for such he used merely as artistic motifs. Though only the depraved prefer pictures whose tone is vicious merely on that account, there are few who would care to censure the great Flemish master; for to the artist there is nothing vicious in the depiction of vice or of that which caters to vice.

By an able critic the entire history of art has thus in substance been summarized. Egyptian art was merely typical, aiming only at the development and expression of types; Greek art was devoted to the worship of form, and that of the middle ages to the spirit of asceticism, while with the renaissance came a rehabilitation of the beautiful, and later an adaptation of art to common life. Then, with the French revolution, arose a war between the classicists and romanticists, followed by a period of confusion, out of which sprang the school of realism, destined to reconcile art with the spirit of modern intelligence. In this condensed description it is not of course intended to cover the entire field, and to some of its statements, especially the closing words, there are many who will take exception. While realism may be serviceable and truth essential to art, both are inferior to the aesthetic quality, just as in building the mason's craft, though more necessary, is inferior to that of the architect. There is much that is beautiful in art which has no pretension to greatness; there is much that is great which is utterly devoid of the beautiful; while the highest of all is a combination of the beautiful, the great, and the true.

The progress which recent ages have witnessed is largely due to the revival of classic models and classic styles inaugurated by the renaissance, though this movement was attended with a certain laxity of morals; for renaissance palaces were by no means the homes of purity, nor was its luxury untainted with vice. A certain degree of license, it would seem, is almost inseparable from extreme intellectual activity; but however this may be regretted, it is better than the condition of affairs prevailing in the dark ages, when both art and science sank almost below the level attained in China and Japan. For confirmation of this latter statement, we have but to look at the waxwork visages and figures of the monastic era, when there were none but monkish artists to design or execute.

Still, as in centuries that are past, art has but little influence over the majority of mankind, who see only the objects portrayed, while the art itself is hidden from their sight; but this detracts not from a power and dignity that belong to no other human agency. Though it move not all, or even many, there is no power that appeals so strongly to the higher faculties, albeit as compared with more positive forces, as that of wealth, its strength may appear as weakness; for it is essentially a spiritual power, and of all powers the most subtle and delicate. In dignity it is often as with the verse of Milton or with the prose of Johnson, whose poverty men could see, but could not see their genius; for genius appeals not to the multitude, exclaiming rather, as did the sibyl of old, "Procul, O procul este, profani!"

It must, however, be admitted that modern conditions do not tend to exalt the power and dignity of art. In olden times students applied themselves to their profession almost as members of a guild, each one subject to certain regulations, and serving his apprenticeship in the studio of an acknowledged master. Raphael, for instance, had many pupils, all skilled in some branch of art, and not a few of them his faithful imitators, believing that by repeatedly copying his works, they might in time approximate if not attain to the glories of his art. When sufficiently advanced in their craft, their reproductions were always salable, especially after receiving, as often they did, a few touches from the master's hand. But the modern painter must obtain his education and his patrons by other means; for

schools of art, as once they existed, are almost a thing of the past. Hence it is that purely artistic considerations are of little weight as compared with the chance of making a fortune or the necessity of earning a livelihood; for he who has achieved success in a lower range of art cannot afford to devote himself to higher aims.

As a rule middlemen, under the name of picture dealers, have usurped the business relations that formerly existed between artist and patron, gradually making good their hold on the leading art centers of the world. While this, if properly conducted, may be a legitimate branch of trade, it is by no means one that fosters legitimate art; for the dealer does not look on pictures from an aesthetic point of view, but merely with a view to the market, striving to create a demand for such works as he desires to sell and this without, scruple as to the means employed. With him there is no such thing as a critical knowledge of art and, often there is no taste for it the best of canvases, being looked upon merely as commodities to be sold at a profit, and the sooner the better, for so he will more rapidly turn over his money.

While the connoisseur will pay no heed to his opinions, it is not so with the customers whom he regards as his prey, puffing his wares, like a common tradesman, so long as the public will listen to him, and the public will listen to much. How different the effect of such transactions from those of true lovers of art, who after careful discrimination buy their pictures not as chattels to be disposed of for gain, but as the companions of a lifetime! Yet the system is not without its benefits; for a purchaser will be more apt to give a thousand dollars for a picture which the dealer has bought for half that sum, than to give five hundred if negotiating with the artist himself. Moreover the best recommendation that an artist, can have is that his works have sold for an extravagant price, and the higher the figure the greater his reputation.

Over the painter's, as over the sculptor's art, still hangs, as in bygone ages, the specter of decadence; but happily it is only a specter, for in both there is much of progress, though more perhaps of transition than of either. The development of art has been aptly compared to the course of a running stream ever, changing in direction, in depth, in hue and quality, now shining in brilliant light and color, now lying in somber pools, now sinking into the sands, but only to reappear in some new region, and never entirely vanishing into the outer darkness. Thus, when classic art died with the spirit that created it, in the middle ages it again awoke to life, first in Italy, then in Spain and the Netherlands, and there becoming stagnant or shallow, displayed itself in France. If, as some would have us believe, the current of real art has sunk to its lowest ebb among this nation of artists, it is only because it has been diverted to another land, or rather should we say to many lands; for art belongs to all the world, and no one nation can forever maintain the preeminence.

The present method of transacting business through picture dealers is at least as honest as that which prevailed in the middle ages; and if purchasers choose to pay dearly for the endorsement of a dealer of repute, the artist is none the poorer for it. On the contrary dealers have largely increased the market value of art, the painter receiving much more for his work, even though the former may pay him only half the price obtained for it, than he would have done without his interposition. The purchaser betakes himself to the dealer because he mistrusts his own knowledge of art, and the artist sells to him as a matter of necessity or convenience; thus both are satisfied, and many impositions are avoided, especially in the substitution of copies for originals. In the middle age and renaissance periods, even the most famous artists, as Perugino and Leonardo da Vinci, sold to their patrons many a picture for

which they had furnished merely the design, leaving the execution to pupils or assistants. They had also different scales of prices to suit the pockets of their customers, varying from that of an altar-piece, which would be entirely the work of the master's hand, to the trifle paid for the decoration of a dish or ewer, which would be handed over to the youngest apprentice.

In this connection it may be of interest to mention here and in later chapters the prices paid for works of the better class among various nations and at various epochs.

The Greeks, who rewarded well those who excelled in any craft, whether pertaining to the useful or beautiful, paid their artists much higher prices than are received in modern times, in relation, that is, to the purchasing power of money. It is probable that no nineteenth century sculptor earned so large an income as Phidias and Praxiteles, the former, whom Quintilian styles the sculptor of the gods, excelling in the grand and sublime, and the latter in the delicate and graceful. Apelles, when court painter to Alexander the Great, received for a portrait of that monarch 20 talents in gold, or the equivalent of about $23,600, while his 'Venus Anaduomene' was taken by Augustus Caesar in lieu of 100 talents in tribute. Zeuxis became so rich through the sale of his paintings that he refused to sell his later works at any price, though he often gave them away. Parrhasius' paintings of 'Archigallus, Priest of Cybele,' and of 'Meleager and Atalanta,'—the former mentioned by Pliny and the latter Archigallus, by Suetonius—were valued respectively at the equivalent in sesterces of $40,000 and $24,000, both being transferred to Rome among thousands of other Greek masterpieces, and finding a home in the palace of Tiberius.

It was not until near the close of the republican era that the Romans began to acquire a taste for art. After capturing Tarentum during the second Punic war. Quintus Fabius Maximus gave orders that all the money and plate should be sent to Rome, but that the pictures and statuary should be left alone as not worth removing. Cato the Censor declaimed against works of art as injurious to the wellbeing of the republic. Later, after Mummius, Sylla, and others had filled Roman fanes and palaces with the treasures of Grecian art, generals vied with each other in securing the choicest specimens from conquered lands. It is said that in the reign of Augustus 80,000 statues adorned the streets and squares, the temples and mansions of the imperial city, while elsewhere in Italy, and in the provinces, were many valuable collections. The later emperors squandered their millions freely, though less on legitimate works of art than on barbaric splendor, as Nero on his golden palace and Domitian in gilding the temple of Capitoline Jove. To their own artists the Romans never paid such prices as did the Greeks, and in truth they had few artists worthy of the name, except those who were brought from Greece, many of them as slaves whose task was to decorate Roman villas and gardens.

During the renaissance period, and while the art genius of Italy was at its best, there were some who made fortunes by the exercise of their craft, but more even among the great masters who could barely earn a livelihood. Titian, it is said, though the statement is doubtful, received so little for his works that he lived in indigence until more than fifty years of age, later receiving a pension from Charles V, and probably making more from a contract for supplying grain than from all the productions of his brush. Raphael left property valued at $150,000 as the financial results of his brilliant but brief career; for he died at the age of 37. Yet he was glad to accept a mere trifle for some of his most valuable works, as for the 'Connestabile Madonna,' purchased by the tzar of Russia, in 1871, for $66,000, and for the 'Ansidei Madonna,' bought for the National gallery, London, in 1884, for $350,000, more than double the price ever paid for a picture up to that time. For years Michael

Angelo subjected himself to the severest privation and to incessant toil, in order to earn for his father, his brothers, and himself the barest necessaries of life. The fresco paintings of Correggio for the cathedral were rewarded with the munificent and the church of St. John at Parma, though the task of an entire decade, sum of 820 sequins, out of which he must pay for his own colors. His later years were passed in comfort, but only through marrying a wealthy bride, and his death, as is related, was caused by carrying home, on a hot day, 50 scudi in copper, the price of one of his pictures, fatigue and exhaustion bringing on his final illness.

Hogarth was one of the most successful of eighteenth century painters, receiving £200 for his portrait of Garrick in Richard III; yet one of his canvases sold at public sale in London, not many years ago, for more than he earned in his lifetime. Sir Joshua Reynolds fared better, leaving a fortune of £80,000; but he was the fashionable painter of his time, and fashion, then as now, had much to do with success. During the earlier portion of the present century, the financial outlook for artists was far from encouraging. Corot, for instance, lived on the small income which his father could afford him, and even when sixty years of age, had not found a single purchaser for his paintings, except among his brother artists. Millet received his first recognition from a Boston connoisseur, who bought an assortment of his best works for an insignificant sum. To a Parisian dealer he offered in vain for 300 francs a picture that has since been sold for 87,000 francs. "I dare not pass before the butcher's door," he writes to a friend, “for we have not in the house sufficient to pay his bill, and such has been our condition for a score of years.”

While many of the artists of former days acquired both honor and profit, it is probable that real art was never more highly appreciated than within recent years, men of established repute receiving for their works, if of equal merit, almost as much as is paid for those of the old masters. For Meissoniers $20,000 has been given to the artist in person, and that by dealers who had their own profit to make. For the best canvases of famous European painters $10,000 to $15,000 may be considered as an average price, and from $2,000 to $3,000 for the choicest productions of men of inferior but respectable standing. Nevertheless good pictures, like good wine, become more valuable with age. The 'Sardanapalus' of Eugene Delacroix, for instance, offered to and refused by the French government for $400, sold in 1872 for nearly $20,000, several of his lesser works, contained in the Laurent Richard collection, selling in the following year at from $6,500 to $11 500. For, Rousseau’s and Troyon’s about equal prices were obtained, while for Corot’s, which went a-begging during the artist’s lifetime, $2,800 to $4,600 was realized.

London, it is said, is the paradise of painters, and especially of landscape painters, who find here a better market than in any other city in the world. Of a certain artist who paints landscapes with cattle in the foreground and ruined abbeys or castles in the middle distance it is stated that he makes $50,000 a year and there are others with even larger incomes; but like everything else in England, the designs must be of a certain pattern, for the people are slow to tolerate innovation in whatever form. While Americans are at least as liberal in their patronage of art, they will pay high prices only to foreigners, whereas, other things being equal, the Englishman prefers to spend his money among his own countrymen. Yet French and other works of real merit find in both countries a ready sale.

A few remarks on art literature and criticism may here be in place, and the more so that to add one more to the myriads of books that have already been written on art in all its branches schools, and nationalities, may require some explanation of its raison d’ etre. First of all be it said that the present

work was undertaken without prejudice, truth and fairness being the first considerations in speaking of artists and their efforts; nor is criticism its special aim, but rather description and comparative illustration.

Many are the excellent treatises devoted to architecture, sculpture, and painting, some covering the entire range of one or more of these branches, and others relating to a single country or to a single school the word, school being here applied in its narrower sense, to a group of sculptors or painters, working under the direction or influence of an acknowledged master. Of these schools, now numbered among the institutions of the past, each had its own models, its own ideals, its own methods of elucidation and execution most of them, tending to artistic development, though none were perfect and none were entirely original. But as with schools of science, the time has long gone by when government aid or the patronage of religion was necessary to their existence. In all departments of professional life men of thought and action are springing from the soil, seeking for themselves their training and patronage, and thus it is that schools of art have almost ceased to exist, while art schools and institutes are everywhere.

Kugler in his Handbook to Art History, and after him Lubke in his History of Art, were among the first to traverse the entire field, representing it if not with fullness, certainly with distinctness of outline. Descriptive of separate branches of art, but of the art of all nations, are such works as the Histoire des Peintres de toutes les Ecoles by Auguste Blanc, and the History of the Plastic Arts by Karl Schnaase, the latter also completing in seven volumes a History of the Fine Arts, and through the close investigation and scholarly style in which he traces the influence of artistic creations on peoples and epochs, doing much to awaken or increase the interest that recent years have witnessed in the expression as well as in the annals of art. Then for works restricted to nationality, we have, for example, in Italy. Crowe and Cavalcaselle, Woermann and Woltmann, though here the lives of painters alone would furnish a good sized library, pictures of superior merit being considered almost as the works of divine and not of human hands. In France art descriptions and criticisms are almost as numerous as works of art. Berger, Claretie, and Leclerq ranking high among standard authors on the subjects of their choice. For England there are Redgrave, Shepherd, and Britton, Ruskin and Eastlake being more catholic in their tastes, as also are Goodyear and Radcliffe, who represent the United States in authorship if not in theme.

As to art criticism and description, it may further be said that in nearly all the leading journals of the day an article is devoted to these subjects, not only on account of their interest, but as an acknowledgment of the importance of the fine arts. While these may be merely skimmed by the majority of readers, such criticism and description are a natural and inevitable outgrowth in every country where there is activity in art. If all were written by competent persons, they would be of great benefit both to the public and to the profession; but unfortunately, for one who is so qualified, there are hundreds who imagine themselves to be so.

The true function of the critic is rather to explain than to criticize, first himself to understand and then to help others to understand; for the subject is so vast and difficult, so subtle and complicated that even after years of study one may still be only on the threshold of the great temple devoted to universal art. Criticism, it has been said, is easy, but art is difficult, albeit to the average observer the compositions of painter or sculptor appear so simple and their intent so obvious that each one fancies himself competent to pronounce on their merits and defects. Yet no one, however ignorant, however

unconscious of his ignorance, wishes to be reminded of it, and especially those to whom works on art are addressed.

Among the latter are doubtless many well acquainted, not only with the schools but with the history of art in all its varieties, and with the relation of these varieties one to another. There are also men ranking high among those whom the world esteems, deeply learned, possessed of wealth and refinement, and yet with as little knowledge of art as was claimed by Scott or Byron, whose conceptions as expressed on printed page have nevertheless been often translated on canvas.

Thus he whose theme is art submits his work to many classes of readers, and if his task be worthily fulfilled, he must speak with sincerity and largeness of view, learning, so far as is possible what the artist has learned and feeling as he has felt. At best he cannot feel assured that his message will be received; for the world, though it be not versed in art, often sees better than the artist himself, and prefers to draw conclusions of its own, rather than accept them at the dictation of critic or connoisseur. Even among critics themselves there are many who declare, with Proudhon, that authority in art is inadmissible; that it is enough for any man to consult himself to be in a position to form a judgment no matter on what work of art; for the eye can be trained only through what it sees, and not by dogmas or theories. While in this remark there is much of truth, it is not altogether true; rather should it be said that universal authority is inadmissible, since no man can acquire in a single lifetime the knowledge which it presumes. Yet on special branches, whether few or many, authority is and ever has been acknowledged, provided it be worthy of recognition and pretend not to be the arbiter but the minister of public taste.

With artists and art critics, as with other men, real merit is accompanied with humility; not the humility that makes a man mistrust his own power and opinions; but that which causes him to think little of what he can do or say, as compared with what the world has done and said. Here and there may be one who is too modest to claim the position that the world would willingly accord him; but this is a failing rather than a virtue, for as Aristotle says, "He who has no brains and does not know it is a fool; but he who has brains and does not know it is a greater fool." The real artist, like the man of affairs, not only knows his business but is aware that he knows it, and cannot be easily persuaded to the contrary. Of Titian Michael Angelo declared that he could not draw; but Titian knew he could draw, just as Shakespeare or Dante knew they could write. Yet none of these men were puffed with conceit of their own ability, and least of all did they expect their fellowmen to fall down and worship them.

Art and Architecture: Egypt, Babylonia, Assyria, and Persia

Hero thou behold'st
Assyria and her empire's ancient bounds.
Araxes and the Caspian lake thence on
As far as Indus east Euphrates west,
And oft beyond; to south the Persian bay,
And inaccessible th' Arabian drought;
Here Nineveh, of length within her wall
Several days' journey, built by Ninus old,
Of that first golden monarchy the seat.
There Babylon, the wonder of all tongues.

As ancient, but rebuilt by him who twice
Judah and all the race of David's house
Led captive, and Jerusalem laid waste,
Till Cyrus set them free; Persepolis
His city there thou seest, and Bactra there;
Ecbatana her structures vast there shows
And Hecatompylos her hundred gates;
There Susa by Choaspes' amber stream,
The drink of none but kings.
—Milton

On the banks of Nile are the most ancient, as well as the most massive of architectural monuments, long antedating the era when tradition merges into history, yet clearly marking the time when civilization, though attended with cruelty and oppression first, as appears even in the building of these monuments, makes its appearance on the face of the earth. Whence came the ancient dwellers by the Nile we know not; nor is there anything that points with certainty to the date of their arrival; for in the oldest of their monumental structures is an art so ingenious and well defined as to point to a condition of society, to a system of government and religion that must have been the result of many previous centuries of development. It can only be said that in some far distant age, very possibly eight or ten thousand years ago, the people of the Pharaohs, crossing the isthmus of Suez,—that bridge of the nations over which primeval races streamed to and fro for conquest—settled in the fertile valley whose river they placed among their gods. Hapi, as they named him, was "the father of the gods, the god of riches, the creator of all good things, who maketh food to be, who giveth life to them that are athirst, who covereth the land with his products, who filleth the granaries to overflowing." So reads an Egyptian hymn; for to this people the Nile was everything, and upon it everything depended. "Do the fingers of the Nile god cease from their labors? Then are all the millions of beings in misery. Doth he wane in heaven? Then the gods themselves and all men perish."

As to the various stages whereby Egyptian, Babylonian, and Assyrian monuments were developed from rude beginnings, few written records remain, except in the writings of Vitruvius, the only classic authority on the subject, though appearing as they did as late as the Augustan era, his works are of no special value. Climate and environment had doubtless much to do not only with the shape of buildings but with the materials used for their construction. Thus, where timber was plentiful, stone was little used, except for temples and other permanent edifices, while even in the earlier temples of the Greeks trunks of trees served for columns and beams and logs resting against or upon each other for members of the entablature. Where timber was scarce and stone abundant, or not far away, as in the delta of the Nile, black marble obelisk, masonry was in common use, and by the dwellers in Babylonian and Assyrian plains bricks were fashioned of sun or kiln-baked clay.

While the pyramids were doubtless the oldest, as they are still the most stupendous of human monuments, even in the great pyramid at Giza, the first one that can be clearly ascribed to the reign of an Egyptian monarch, there is a difference of opinion as to date amounting to as much as two-score centuries. It is probable, however, that Lepsius' estimate, 3095-3032 BC, is not very far from the truth. Unlike other nations, the earlier Egyptians built neither for use nor display, but for eternity; hence in the solid and massive workmanship that bids defiance to time they had no rivals either in the ancient or modern world, while in the grandeur of simplicity they were excelled only by the Greeks. Though as to color and decorative scheme Egyptian architecture ranks below that of other nations of antiquity, in vastness and sublimity of proportion it awakens a feeling of awe akin to that with which we regard the sublime in nature, a deeper feeling even than is aroused by the most massive of Roman monoliths, by the Coliseum, or by the Parthenon.

Yet it is only in technic art that the pyramids stand unrivalled among the works of man, and from an aesthetic point of view there is nothing to commend them. A tower of the same altitude would be much more imposing; for a pyramid always looks smaller than it is, and not until we stand almost at its base can its proportions be realized, since the surface, sloping away from the line of vision, does not challenge observation. This, however, was the form best adapted to the purpose for which the pyramids were built, the one that would longest withstand the ravages of time. As to structural design,

they were merely terrace-like masses of rough-hewn masonry laid in horizontal strata, but with an outer casing neatly jointed and of elaborate finish. Within each of them was a sepulchral chamber, reached by a passage, or series of passages, the roof, if not formed by the rock itself, being composed of immense cantilevers of stone, projecting from the walls on which they stood, and either resting against each other or on layers of stone.

The great pyramid of Khufu, or Cheops, was built on the edge of the wind-swept plateau in which terminated the hills of Giza, overlooking the ancient city of the White Wall and the holy city of Heliopolis. It covered a base 764 feet square, and its height was 476 feet, the present dimensions being somewhat reduced by the corrosion of many centuries. Its polished facing of white limestone, almost destroyed since the Arab conquest, was so neatly jointed as almost to present the appearance of a single slab, a movable flagstone working on a pivot serving for entrance, but so effectually concealed that none but the priests and custodians knew of its whereabouts. To conceal the sepulchral chamber such precautions were taken that for and such more than 4,000 years the secret of the pyramid was preserved, was the solidity of workmanship that the stones which wall in the sarcophagus of the king have moved not a hair's breadth since the day they were placed in position.

There are older pyramids than that of Cheops, as those of Medum and Sakkara, though the latter were rather mastabas, or platforms, gradually assuming pyramidal shape as enlarged by successive accretions of rough masonry and polished casing. Step pyramids are termed these cumulative mastabas, their outlines being broken by successive steps, while the passages encircling the sepulchral chamber, are extremely intricate and of peculiar construction. In some of the Sakkara pyramids both passages and chambers are covered with religious texts in the form of hieroglyphics, painted in bright green colors on faces of white limestone. In one of the two Dashur pyramids, which resemble those at Giza, most of the outer casing has been preserved; in the other the roof of the chambers is carried to a remarkable height through successive overlappings of masonry. As to the long mooted question of inscriptions on the casings of pyramids, it may here be said that none have been found which bear the stamp of antiquity, though travelers without number, from the days of Herodotus downward have left here their superscriptions in many languages.

The mausolea of the Egyptians, like their pyramids, possessed no beauty of form, and were intended not to please but to endure. For the wealthier classes the usual burial place was either a tomb hewn out of the solid rock or a mastaba with chapel and subterranean vaults. The sanctuary was small, and for the most part merely an oblong chamber with a stela set into the western wall, at the foot of which was an alabaster or granite table where were placed offerings of food and drink. In a recess was sometimes a statue of the deceased with smiling features and erect of carriage, as though about to step forth again into the scene of his earthly career. On festal days when dishes from, the family banquet were placed before it in the dim light of flickering torches one, might well imagine that the figure was endowed with life and claimed from his pedestal the homage of his descendants. On the stela prayers were inscribed, together with the name and genealogy of the demised, without which his personality would be lost in the future world where the nameless, dead were believed to be non-existent .

But we need not further linger among Egyptian pyramids and tombs; nor is other than passing mention needed of the sculptural monstrosity known as the sphinx; its features, though still expressive of power and dignity, sorely disfigured by Mameluke cannon-shot. Long before the great pyramid of Cheops was erected, the sphinx, hewn out of the solid rock, stood guard over the valley of

the Nile not far from the apex of its delta. Only the merest outline now remains of the weather-worn figure of the lion; but in the eyes is still the deep intensity of thought, and on the lips the smile that scores of centuries have not effaced. Around it temples were built during the later Egyptian dynasties, and around the temples were the common burial grounds of the nation, the bodies of the poor being cast beneath the sand uncoffined and unclad, while for others were constructed small rectangular vaults of yellow brick, void of all decorative features.

The temples of the earlier pyramid builders were almost as plain as the pyramids themselves. One unearthed at Giza, not many years ago, in close proximity to the sphinx, was in the form of a cross, with its principal chamber supported by prism-shaped columns of syenite, without bases or capitals. Except for a wainscoting of alabaster or polished granite, there was no attempt at decoration; nor was there on the walls either sculpture or inscription of any kind. In structural design it was probably the simplest temple building in the world, without moldings, without cornice, and with the merest apology for an architrave.

More stately were the monuments of Thebes, the city of temples and palaces, whose ruins extend over an area of several square miles on either bank of the Nile, though most plentiful on its eastern banks as nearer to the rising of the sun, which the Egyptians worshipped as a god. Surpassing all others in magnificence and beauty of design was the palace temple of Karnak, one of the grandest architectural monuments of all the ages and of enormous dimensions, nearly twice the size of St. Peter's and four times as large as the largest of medieval cathedrals.

From an avenue lined with colossal sphinxes, an imposing pylon, or gate-house, led into a spacious court rich in columnar ornamentation. Thence, through another entrance of still more majestic proportions was access to the great hypostyle hall erected by Sethos I and his successors in the fifteenth and fourteenth centuries, its stone ceiling supported by scores of columns, of which those in the center, enclosing a lofty nave, were 66 feet in height. Beyond other pylons, in front of which stood granite obelisks, were sanctuaries, courts, and chambers connected by galleries and corridors of intricate design and in labyrinthine complexity of detail. In combination with projecting pillars were sculptured figures suggestive of Egyptian mythology, and on the walls, depicted in richest imagery, religious symbols and ceremonies were blended with the heroic deeds of royalty.

Second to the temple of Karnak, and second only, was the Rameseum, erected in the fifteenth century by Rameses the Great, probably the Pharaoh of the oppression. The principal facade was composed of pyramidal masses of masonry, between which a doorway led into a porticoed courtyard, and this into an inner and more splendid court, on the sides of which were colossi and double rows of circular pillars. The hypostyle hall, inseparable from the larger Egyptian temples of the Pharaonic age, was of remarkable beauty, with figures on its central columns of most elaborate workmanship. Beyond were the apartments of the king and priests, though of some the exact use cannot be clearly ascertained. Among other great buildings was the temple of Luxor, a second rival of the Karnak palace, and in front of which are colossal statues of Rameses the Great. Finally, connecting the various temples were avenues of sphinxes, with enclosing walls and embankments such as were seen nowhere in the land of Egept, save in "hundred-gated Thebes."

Most of the Pharaohs built unto themselves palaces, surrounded with buildings for the accommodation of court and household; for few were content with the mansions which their predecessors had occupied; nor would they dwell in their capital at Memphis, but at some chosen spot

at a convenient distance therefrom. Each palace, with its adjacent group, presented the appearance of a fortified town; for nothing less would ii serve for the shelter and protection of the multitudinous host which formed the royal court and retinue. Almost in the center of a rectangular space, enclosed by a battlemented wall, stood the imperial mansion, readily distinguished from the rest by the pillared balconies before which envoys and officials prostrated themselves as they came into the presence of the Pharaoh. Within was the council chamber sometimes entered, as in the palace of Ammon, through doors inlaid with the precious metals and with roof supported by lofty columns of rare and costly woods colored in brilliant hues. The private apartments and apartments of state were numerous, the former being separate from the rest, as also were the quarters of the court nobles and domestics. Yet, notwithstanding its vast proportions, the framework of the edifice was often so badly constructed that while reared, like the pyramids, for eternity, it did not long survive its artificer.

Egyptian lords had also their fortified mansions, imitating on a smaller scale the magnificence of the royal household, with reception halls and numerous apartments for the harem, where surrounded by concubines the legitimate wife, sometimes the daughter of a Pharaoh, enacted the empty role of queen. Within the walled enclosure, as within that of the royal palace, were the offices of the various departments, as of the gold storehouse, the granary, and the storehouse of provisions, where were articles of food and drink collected as tribute in kind by the omnivorous tax-gatherer.

Egyptian towns of ancient origin, such as grew with the chance growth of centuries, were merely a network of narrow, dark, and malodorous alleys, lined with small brick houses built at random and presenting to the street an expanse of bare wall broken only by a narrow entrance way. Those of a later period, founded originally by some Pharaoh or lord, were of more pleasing aspect, with paved and regular thoroughfares bordered by structures which differed not greatly in appearance from the cities of today. In the dwellings of the rich were state apartments and a reception hall, in which rows of octagonal pillars, supporting the roof, were fitted into circular bases of stone. There were also several sleeping apartments and storerooms, especially the one where household treasures were guarded from robbers and tax-collectors. Yet few were of more than one and none were of more than three stories; for the domestic architecture of the Egyptians, and even their palace architecture was of the simplest, the people reserving their wealth for the temples of the gods, as did the Greeks of the classic age.

In all the principal cities of Egypt were temples adorned with costly and often with colossal statuary. Before the enthroned statues of the Pharaohs the people worshiped as before a god; for such they deemed it, believing that here was the spirit of him whose body rested in a sepulchral chamber of the pyramids. The sovereign himself would enter the sanctuary, where was a statue of one of his predecessors, would question it after performing the rites of invocation; the priest returning answer as though inspired from on high. With symbols and hieroglyphics recording what the monarch said on these occasions, what was the response and in what emphatic tones delivered, are covered the walls of Theban temples, furnishing sufficient for many a volume of holy writ. The Pharaoh was endowed with a dual nature, human in the flesh but a god so far as his soul was concerned, and thus it was that he became not only the king but the high-priest of the nation, acting as mediator between heaven and earth. In religious processions he accompanied the images of the gods, pouring out in front of them the mystic libations of wine and milk, and with his own hands offering the victim in sacrifice.

There was also, a subterranean Egypt, the carvings on tombs being no less elaborate than those on temple wall or pillar. Death was to the Egyptian merely a transition to a better and more lasting existence, and secure of this, he prepared for the grave as for his home, ceiling his tomb with porphyry, decking it with brilliant colors, and depicting on its walls the pleasures and pastimes of his happier days. Hence it is that Egyptian art relates almost exclusively to their gods, their kings, their courts, and their sacred ceremonies, though here we may also read the story of their domestic life.

Says a writer on Egyptian sculpture: "The wealthy citizen of Memphis or Thebes had his town house of brick and stucco; his commodious country villa beautified by gardens, fish ponds, and vineyards; his canopied boat, his chariot, his pet gazelles, his carpets and couches, his gay dresses and fine porcelains, his conservatory and band of music. All this and more was reproduced in his sepulchral bas-reliefs. Politically, such pictures also show us dynasties of despots, the ceremonies of the court, the retinue of kings, and the patient labor of their slaves. Sacred subjects, most frequent and elaborate of all, mirror the holy rites of worship, and interpret for us a creed so singular and significant, so mystical and yet so practical, that most of the religions of antiquity drew from it their profoundest thoughts, while the smallest details of daily life found in it their rule and reason."

In all the tombs were statues called by the natives "kas," varying in number, size, and material according to the means of the deceased, but bearing a close resemblance to him whose sleep they guarded. To the Egyptian the ka was his double or counterpart, which dwelt with him during his earthly life, and after death awaited his spiritual and intellectual faculties to reunite in the immortal life that was to come. The more exact the likeness, the more certain the resurrection, no change of style being tolerated and nothing but accuracy, with strictly conventional methods of treatment, required of the artificer, thus developing a school of portrait sculpture at once unique and powerful. Among the statues preserved in the Egyptian museum is one of a Sheikh- el-Beled, or village mayor, employed as an overseer of public works in the time of the pyramid builders. The figure appears to be advancing, staff in hand, toward the spectator. It is about half the size of life, heavy, thick-set, with massive head and shoulders and smiling, complacent features of commonplace expression, except for the eyes, which, as in all Egyptian statuary, are of remarkable brilliancy, with a fascinating and uncanny expression. The effect was produced by filling the hollowed sockets with a preparation of black and white enamel, a silver pupil reflecting the light as from the glance of the living. Of more dignified aspect are the limestone statues of Ki,—an important personage as it would seem, for in his tomb were nineteen kas,—of Sepa, priest of the White Bull and of Nesa, his wife, arrayed in a tight-fitting V-shaped garment and on whose arms were many bracelets. In the museum of Leyden is one of the oldest of these portrait statues,—that of the wife of Khufu or Cheops, builder of the great pyramid.

It is only from the abodes of the dead that we can form an idea of the household decorations and furniture of the living; for except as depictured in sepulchral chambers, the latter have entirely disappeared.

In the alabaster and diorite vases, the bracelets and necklaces, the footstools, folding chairs and bedsteads of carved, wood, are evidences of finished workmanship, while in the ivory sculptures of jewel cases were bas-reliefs in miniature carved with exceeding delicacy. All these and other articles are represented in Egyptian tombs; for courtiers and lords vied with each other in collecting for use in the future world all the best that architect, artist, and artificer could produce.

Just as the architectural forms of the Egyptians, except for a few minor details altered, but little in thousands of years, so with their sculpture and painting, which were used only in the service of architecture in decorating columns walls, and ceilings, or in erecting colossal statues within the precincts of sanctuaries. In their portraiture the same royal figure is hundreds of times repeated, and in their pillared halls and avenues of sphinxes recur in monotonous repetition images without trace of variety in expression or in symbolic attributes. In their standing figures, so frequent on the fronts of columns, the arms are crossed over the breast, the legs placed close together, and the body leans backward for support in oriental listlessness; in their seated figures the feet are always side by side, the body erect and stiff in attitude, and in all the face leans forward with fixed and earnest gaze. In rendering homage to their gods and god-descended Pharaohs, they attempted to atone by size for lack of artistic spirit, many of the seated Pharaohs being more than 20 feet high, while the statues of Rameses the Great in the temple of Ipsambul are 60 feet, and that of the vocal Memnon 70 feet in height.

Of these colossal monuments it never occurs to us to inquire the name of the artificer; for all are so much alike that at best we can only regard them as a higher form of handicraft. Yet there is something remarkable in the accuracy with which, in an age when iron implements were unknown, these masses of granite, basalt, and porphyry were worked into shape with the utmost fidelity of detail, and polished to a smoothness and brilliancy of surface which modern processes cannot surpass. While sculptures in relief are plentiful, the figures are in effect little better than wall paintings, suggesting a surface adorned with richly colored tapestry; for the slight hollowing of their groundwork affords but a suggestion of plastic life. It was in animal sculpture and painting that the Egyptians most excelled; for though here were always the same figures, landscape features, and other accessories, the effect was harmonious and agreeable. Though whether by brush or graving tool, the subject is always presented in flat relief, the animals are in motion, with the gait and play of limb peculiar to each of the species. Thus with skilful drawing and lifelike expression are reproduced the measured tread of the ox, the graceful step of the gazelle, and the reposeful carriage of the lion, the human figures being the most faulty, little better in truth than anatomical monstrosities.

To rear temples and obelisks was the favorite pastime of kings, whose chariots were ablaze with gold and silver, and whose coats of arms were more richly decorated than those of mediaeval knights. Hence artists of the higher class were held in high esteem at court, receiving from the monarch substantial marks of favor. One Iritesen, for instance, a worker in the precious metals, in ivory and stone, who lived in the twelfth Theban dynasty, boasts that "he held a place in the king's heart and was his joy from morning until night." But those who performed the mechanical processes, and who dragged into place the colossal statues of the Pharaohs, were little better than slaves, working in gangs and under fear of the lash. In a painting belonging to this dynasty are represented hundreds of men grouped in pairs hauling by ropes a sledge on which is a mammoth stone figure in seated posture. On the knees of the figure is an engineer who beats time with his hands as he directs the movements of these human draught animals, and at the side are overseers with relays of slaves to supply the places of those who drop from exhaustion.

In the mummy-cloths preserved in museums and in the tomb-pictures which explorers have brought to light, we find the alphabet of painting, an art at least as ancient as the pyramids, though the first attempts were probably mere outlines of face and figure rudely traced on stone. Then came the coloring, with red, green, and blue as the favorite hues of the Egyptians, the women being painted red,

the men a darker red, the water blue, and the birds a combination of green and blue. Of the pictures which adorn the walls of temples the themes were selected from the battle and the chase, depicting only the deeds of rulers, while those in the tombs were descriptive of the manners and customs of the life that had been or suggestive of that which was to be. First the wall was measured off in squares, and then the figures were fitted into them, the shape of the body and all its members being regulated by this mechanical process. Thus painting was non-progressive, and though largely in demand for decorative purposes, never became an art. Though changes came with the change of dynasties, these were of brief duration, until we come to the reign of the Ptolemies, followed by that of the Romans, whose works, with some few exceptions, belong rather to classic art, while the mosques of Cairo and other cities of Arabian architecture rank with the monuments of Islam .

In the architecture, as in the art of Chaldea, Babylonia, and Assyria there is much in common, since for a period of nearly 2,000 years, to say nothing of countless ages of tradition, each was alternately in the ascendant until finally all of them fell under the yoke of the Medes or Persians.

Of the earlier Chaldean and Babylonian temples, as those of Erech and Mugheir, the Ur of the Chaldees, little need here be said; for they were merely masses of brickwork, rising in stages one above another with few traces of skilled architectural plan. In what is known as the Birs-Nimrud at Borsippa, a suburb of Babylon, there was some attempt at design; for though the bricks bear the stamp of Nebuchadnezzar, by whom the temple was either repaired or rebuilt there is no, reason to suppose that he altered its original form. Of this building, which was dedicated to the seven planets, the lowest story was in the shape of a square with a side of 270 feet, above which were six other stories each with sides about, 40 feet smaller than the one below, the topmost story forming the sanctuary and probably used also as an observatory. As to the other chambers nothing definite has been ascertained, though they appear to have been the counterparts of those which encircled the temple of Solomon, and are therefore of exceptional interest.

The palaces of Chaldea, in common with their temples, were built on the tops of artificial mounds, the one at Lagash, the capital, rising from a platform 40 feet above the level of the plain, and accessible only by a narrow stairway. It was a squat and heavy structure of rectangular form, two stories high and with plastered walls on which were rough paintings of mythological scenes. Otherwise there was no attempt at decoration, unless we may include in that term the pilasters that broke the wall surface, resembling rather the posts of a palisade, and without bases, capitals, or moldings. Every Chaldean palace was also a citadel, with walls strong enough to withstand a siege and wide enough to shelter the inhabitants of the town or district of which it formed the center. Hence strength and not beauty was the aim of the artificer, and to this all other considerations were sacrificed, comfort being entirely neglected. Gudea, one of the most powerful of princes, contented himself in his Lagash palace with five or six apartments, meanly furnished and lighted only from the door and from a small hole cut in the ceiling. Fronting on the courtyard was a storeroom for provisions, and another chamber served as kitchen, with fireplaces separated by dividing walls to hold the pots and pans. Here were none of the tessellated pavements, the woodwork inlaid with gold discovered in the ruins of Chaldean temples; nor was there anything of the luxury and display that we are accustomed to associate with oriental mansions.

Brick, whether sun-baked, kiln-burnt, or enameled, but always brick, was the material for Chaldean buildings, stone, which must be brought from a distance at great expense, being sparingly used and

chiefly for ornamental purposes. For monuments thus constructed constant repairs were needed, neglect causing effacement of outlines followed by speedy dissolution. Thus it is that the ruins of cities by the Euphrates have attracted but little attention as compared with those of the cities by the Nile, forming merely heaps of rubbish hardly distinguishable from the dust from which their founders raised them. In places, however, as at Uruk, sufficient remains have been discovered to show that houses, even of the better class, were built with low arched doorways and vaulted ceilings supported by trunks of trees, openings in the walls admitting light into small rectangular chambers, comfortless and bare of furniture as were the royal palaces. They stood, however, in the midst of gardens and were sufficiently removed from the business center, where shops and bazaars were thickly clustered amid narrow refuse-littered streets.

Better was the condition of affairs in Babylon, at one time a Chaldean city, though it was not until the reign of Nebuchadnezzar and his successors that it became the huge metropolis whose remains, after serving as a quarry for centuries, still rank among the wonders of the world. In truth it was a magnificent city of which the vainglorious monarch exclaimed: "Is not tins great Babylon that I have built for the house of my kingdom, by the might of my power, and for the honor of my majesty?" If we can believe the statement of Ctesias, whose estimate is confirmed by Strabo and others, it was 100 square miles in extent, or more than the ice the size of London, though most of this area was covered with gardens, parks, and other vacant lands.

Around it were two walls, of which, as Herodotus relates, the outer one was 335 feet in height, and with width sufficient for a four-horse chariot to turn in its course. In its construction were used 1,500,000,000 bricks, and it contained 100 brazen gates, while the banks of the Euphrates, which ran through the center of the city, were lined with quays and joined by a bridge upheld by granite piers.

Near the eastern end of the bridge stood the great palace named by Nebuchadnezzar "The Admiration of Mankind," surrounded by walls seven miles in circumference, as Diodorus relates, the inner one adorned with hunting scenes of which specimens have been preserved. Enclosed in this space were the hanging gardens, one of the seven wonders of the world, though in their construction there was nothing wonderful, for they consisted merely of trees and flowers planted on a series of arches supported by columns and built in the form of a square, a fountain being supplied with water raised from the river, as Strabo says, by means of a screw.

A more remarkable structure was the temple of Bel, or Belus, named by ancient historians the temple of the "Foundations of the Earth”, and probably identical with the tower of Babel, as appears from the ruins now known as the mound of Babil. It was in the form of an irregular pyramid, with eight stages or stories, each narrower than the one below, the basement covering an area 600 feet square. On the summit, reached by a winding pathway, was a sanctuary containing statues of the god in solid gold, one of them 40 feet in height, with a golden table 40 feet long and many other articles fashioned of the same material. At the foot of the tower was another sanctuary also with its images of gold. As tradition states, the tower was restored by Nebuchadnezzar, whose inscriptions read, "I gave to its cupola the form of a lily, and I covered it with chiseled gold, so that it shone like the day."' Herodotus, after describing this temple-tower as he beheld it, adds: "In the days of Cyrus there was in this temple the effigy of a man in solid gold, standing twelve cubits high. Xerxes, the son of Darius, killed the priest who forbade him to move the statue, and carried it away."

Babylonian monuments were nearly all of a sacred character; for as the people were essentially religious, so was their art hieratic, inscriptions and mural paintings relating almost entirely to the worship of the gods. Their palaces were lavishly decorated, and their domestic architecture was far in advance of that of the Chaldeans, many of the houses in Babylon being several stories in height though all were of brick forth, most part cemented with mortar or bitumen.

In sculpture the Babylonians were inferior to the Egyptians and Assyrians, though teaching their art to the latter who were not slow to better the instruction. Yet, there were artists skilled in handling the chisel and graving tool, as is shown, for instance, in a porphyry cylinder representing the mythic hero Gilgames watering the celestial ox. In his hands is a vase from which flow jets of water uniting in a stream which irrigates the land, the ox, with large crescent shaped horns, holding back his head to drink. This belongs probably to the seventh century BC and is a most finished piece of workmanship, with boldness and precision of outline and well suggested motion of the figures.

Famous for their bas-reliefs were the sculptors of Lagash, though noted rather for audacity than for skill in drawing and modeling. In a sacrificial scene a woman is represented as singing to the accompaniment of a musician who plays on a lyre adorned with the figure of a bull. Above them is a man wearing a fringed mantle, holding in one hand a staff and in the other a circular vessel resembling a patten. He is followed by an acolyte with arms upon his breast, behind whom another figure beats time to the music. While all the figures are squat and clumsy, they are not wanting in precision, though contrasting sharply with the more delicate tracery of Egyptian statuary.

There are relics of Accadian statuary—Accadia being the cradle of the Chaldean race—which belong to the time of Abraham was first studied, and in the observatories which surmounted Chaldean ziggurats, or temples, the science of astronomy. In the ruins of Sippara was unearthed a tablet thousands of years old, on which was inscribed the image of Shamash, the sun-god, resplendent among the celestial orbs, while the disk of the sun is repeatedly found on reliefs. Anu, the great father of all, could not be expressed in sculptural forms; but of Bel, the lord of earth, and Ea, the ruler of the deep, there were many representations, the latter being painted on monuments with the body of a man, to which was appended the tail of a fish. Merodach his son, was the friend of the human race, and appears in one of the bas-reliefs as pursuing the demon Tiamat with avenging sword. Of Nebo, the god of astronomy and the son of Merodach, there is a statue in the British museum nearly seven feet in height. Other spirits of heaven and earth were counted by hundreds, appearing on bronzes, seals, and reliefs in various shapes, for the most part malevolent rather than benign. In the Louvre is a bronze statuette of the genius of the southwest wind, such as were hung on doors and windows to scare away the storm fiend at sight of his own deformity. Eagle's wings extend from the shoulders over an attenuated body surmounted by most repulsive features, above which are the horns of a goat.

The figure of Izdubar frequently appears in archaic art, usually as a mighty hunter in combat with a lion. Nana, the goddess of fertility, of whom it is said an image existed in Babylonia some 2,300 years before Christ, shared or at least reflected the glories of Ishtar, the queen of heaven, who is represented with a star on her forehead when carried in procession by her votaries. Bulls with outspread wings and human heads, on which was an abundance of curled hair surmounted by horned tiaras, kept guard as beneficent deities in front of palace and temple gates. There were also, as memorial offerings to the gods, shaven heads and headless statues of RIG diorite, inscriptions showing that they were sculptured more than forty centuries ago.

Of the pictorial craft of the Babylonians there is little more to be said than is contained in the words of Ezekiel, who speaks of "men portrayed upon the wall; the images of the Chaldeans portrayed with vermilion," the word Chaldean being applied as by other writers to the Babylonians, with whom they became assimilated. Their palace walls were covered with depictions of monarchs, animals, and flowers executed in the brightest of hues; yet the decoration of the palaces of Babylon in the days of its later magnificence belongs rather to Assyrian and Persian art.

In some of the bas-reliefs preserved in the British museum and the Louvre may still be traced the colors with which the Assyrians adorned their sculpture, different hues being applied to the hair, the beard, the eyes and various portions of the attire. This was one of the methods later adopted by the Greeks, whose earlier art was distinctly Assyrian in character, as that of the Assyrians was originally a mere imitation of the Babylonians.

But while there was much in common between the two latter, there was this essential difference, that the one was sacred and the other secular. Nearly all the great monuments of the Babylonians were in the form of temples; but to the Assyrians the temple was merely an adjunct of the palace, for their king was worshipped with greater reverence than were any of their gods. Assur, their god of battles, was the sovereign deity who led his people to victory, and was therefore worshipped above all the rest, his figure appearing on monuments surrounded with a solar disk, winged and with bird-tail appendage, the latter serving for protection and also as a symbol of worship.

It was through the favor of "Assur the lord" that Tiglath-Pileser was victorious over his enemies, bringing home as captives a score of alien gods. The first Assyrian rock sculpture, carved out of a precipice on the bank of the Tigris nearly 3,000 years ago, represents this monarch as pointing the way to new fields of conquest far toward the north and west. Under his successor, Assur-natsir-pal, begins the first era of Assyrian art, the bas-reliefs of this period, especially those of animal figures, showing remarkable simplicity and vigor.

In some respects there is nothing finer in all archaic sculpture than the lion-hunt portrayed in a relief unearthed at Calah, now Nimrud, from the ruins of the Northwest palace, which Layard was the first to excavate. The king in his chariot is hunting a pair of lions, one of which lies prostrate under the horses' feet, while the other charges at the king as he aims the fatal dart. There is no background to the picture, and there is little attempt at perspective; but there is a boldness of conception and a freedom of execution that give to it a more lifelike aspect than anything to be found in later Assyrian art.

Solidity and realism were the chief characteristics of Assyrian sculpture, and especially does this appear in the colossal bulls that stood guard over their palaces as a protection from evil spirits. In later eras, however, mere brute strength and unimaginative energy were relieved by other forms of artistic expression, vegetation being represented with remarkable skill and with some attempt at landscape outline. While in the portrayal of figures there is not the freedom and freshness of the earlier period, these are in a measure compensated by superior grouping and delicacy of finish. But presently these degenerated into effeminacy, scenes from the harem being preferred to those of the battle and the chase, while lions, instead of being hunted, were imprisoned in cages or whipped into activity for royal battues.

In the sculptural and pictorial decoration of Assyrian palaces the lives and deeds of kings are ever present, the sovereign appearing crowned with the tiara and arrayed in flowing and richly embroidered garments, moving with stately step or enthroned amid the officials of his court. There are also warlike themes, as of castles attacked by huge battering rams, and rivers across which the monarch and his chariot are transported on a ferry, his warriors supported by floating bladders, swimming to the opposite shore. To priestly figures a pair of wings and at times an eagle's head give an air of mysterious dignity, while in the colossal guardians of the portal a bearded human head surmounts the body and limbs of a bull, above which are mighty, outstretched pinions.

Of the Northwest palace erected at Nimrud by Assurbanipal, one of the oldest of Assyrian excavations, the following description is probably as accurate as the lapse of nearly thirty centuries will permit. "Its walls were of brick, their inner paneling being of alabaster, on which the sculptures were carved, with rich paintings above the paneling. At the entrances of the principal chambers were colossal winged bulls or human-headed lions, and from these portals open long suites of halls. Processions of royal conquests were arranged along the walls, and lion-hunts, festivities, and all the chronicles of the empire were carefully sculptured and harmoniously colored. Above them was a flat ceiling divided into elegantly bordered square compartments, gay with painted flowers and fantastic animals, gilded and carved in rare woods or inlaid with ivory, while the floors were paved with alabaster slabs profusely carved with inscriptions. Through such environment moved the proud figures of the Assyrian court."

Of the palace which Sargon built at Khorsabad about 720 BC, intending to make this the capital of the empire, the remains have been thoroughly explored, with the results described in the works of Botta and Victor Place. "Day and night," says Sargon, "I planned to build that city, in which arose the palace of incomparable splendor erected for the abode of royalty, the palace of ivory, with doors of palm and cyprus, overlaid with shining bronze." In a facade 330 feet in length, were three magnificent portals, the central one guarded by colossal winged bulls, 19 feet in height, between which a giant was strangling a lion. The main court was 315 by 280 feet; on the right were smaller courts surrounded with stables and out-buildings; on the left were storerooms for gold and silver, iron and copper, stuffs dyed with saffron and robes of purple and blue, pearls, ebony, and sandal-wood, all of which, with booty of every description, was contained, as Sargon boasts, within his palace walls. Beyond was the harem, in whose central court were enameled tiles, painted in yellow colors on a blue ground with figures of the king, his courtiers, his lions and eagles. All the principal apartments of the palace were adorned with alabaster slabs embellished with sculptures representing the wars and pastimes of Sargon, the magnificence of his household, and his religious sentiments. There were also landscape backgrounds, and in one of the finest of the bas-reliefs, now contained in the Louvre, the monarch is giving audience to his visitors, with eunuchs following in the train. Galleries formed an upper story with airy and light apartments open to the breeze and affording an excellent view of the country, while the thickness of the walls protected the chambers of state from heat and glare.

Greatest of all Assyrian palaces was that which Sennacherib, son of Sargon, erected at Nineveh on the mound of Kuyunjik, the building of the mound itself, which was 8,000 feet in circuit and 30 in height, being a task of considerable magnitude. In design it closely resembled the Khorsabad structure, but was almost double its size, forming a square with a side 600 feet in length. In front of the main facade were ten winged bulls of enormous dimensions, with a giant between each external pair. A hall nearly 200 feet in length connected two spacious courtyards, one of them affording access to the royal

apartments overlooking the Tigris. The decorative scheme was in the most elaborate style of Assyrian art, reliefs arranged in compartments and bordered with horizontal bands representing the royal campaigns, the march of armies, and the countries through which they passed, their physical features, their fauna and flora, their temples and other monuments. In one of the galleries was illustrated the process of moving the colossal bulls from the quarries to the portals of the palace, the king, enthroned in state, witnessing the operation. Boats loaded with huge blocks of stone are hauled by cables, the men who drag them toiling under the lash of the taskmaster, like animals on a tow-path. The artificer then begins his work and when the image is finished, sledges and rollers are placed beneath. Then is built a platform of brick, to the summit of which the statue is dragged and placed in position, the overseers shouting their orders through speaking-trumpets and making good use of the whip.

Nineveh was a city of palaces, no less than ten being ascribed to Esarhaddon, of whom it is written in the second book of Kings: "It came to pass as Sennacherib was worshiping in the house of Nisroch, his god, that Adrammelech and Sharezer, his sons, smote him with the sword, and Esarhaddon, his son, reigned in his stead."

Of his architectural monuments few traces now remain; but from the ruins of the imperial mansion of Assurbanipal, the Sardanapalus of the Greeks, who had also his palace on the Kuyunjik mound, many sculptures have been preserved, their delicate and elaborate carving representing his victorious campaigns, with chariots overthrown and opposing cohorts at the point of the spear amid all the confusion of the battlefield. In a bas-relief in the British museum, entitled the "Feast of Assurbanipal," the monarch and his wife are represented as banqueting in a vine-clad arbor, the queen arrayed in fringed and jeweled robes and seated at the foot of a table from which the perfumes of incense mingle with the rich odors of exotic plants. Both are sipping wine from golden cups, and on the still night air fall the low, soft tones of the harp, all forming a picture in stone of Assyrian luxury. Of the library gathered by this sovereign, including thousands of tablets covered with inscriptions which have been deciphered by European scholars, a description is given in an earlier chapter of this work.

Nowhere probably in the ancient world were there so many imposing monuments as on these mounds of Kuyunjik and Nimrud. Surmounted with gayly colored towers and ziggurats, surrounded with spacious terraces faced with stone, approached by stately flights of steps, and built around courtyards rich in columnar and sculptural ornamentation, they were even more splendid of aspect than later were the classic temples of the Acropolis or the Capitoline hill. The city of Nineveh, as it appeared on the eve of its destruction by Cyaxeres the Mede, near the close of the seventh century, extended for three miles along the eastern bank of the Tigris, the royal quarter, apart from other enclosures, being surrounded with fortifications several miles in circumference, 30 feet in width, 100 in height, and with towers of equal altitude. Here and in the suburbs was the home of 600,000 people, including many thousands of captives employed in the building of palaces and bath, embankments, and artificial hills. In the mansions of the rich was furniture of elaborate design and costly workmanship; there were tables and chairs with carved and feet resembling those of lions; there were embroidered curtains of tapestries, and couches with canopies fashioned from the delicate fabrics of Babylonian looms. The wealth of the Orient was centered in this old-world metropolis, where were stored the products of the mine and the gold and silver gathered as tribute from many nations.

From the Assyrians Persia borrowed much of her earlier art, the winged animals that stood guard over the portals of royal palaces at Persepolis resembling closely those of Nineveh, while almost identical

were their sculptures representing long lines of captives and tribute-bearers led in procession to the foot of the throne where the monarch was seated in the midst of his courtiers. In their architecture, however, there was one essential difference,—that stone was used for building material, the Assyrians and Babylonians using only wood and brick. Yet this change was not introduced until after the conquest of Egypt by Cambyses; for Asiatic nations were slow to imitate the Egyptians, who were the first builders in stone.

In the palace ruins of Persepolis are found the choicest specimens of Persian architecture and sculpture; for here it was that Darius and Xerxes reared their stately mansions from platforms approached by marble staircases and terraces adorned with statuary and fluted columns. Amid a group of majestic ruins named the Chihil menare, or forty minarets, now known as the Takhti or throne of Jamschid, stood the great hall of Xerxes with its hundred pillars, covering a rectangular space of more than 100,000 square feet, and both as to design and decoration the finest architectural monument of the Persian Empire. While many of the details resembled those of Assyrian palaces, the entire effect was superior, the scheme of ornamentation being intended to illustrate the divine attributes of the king, together with his conquests and earthly dignities. Less pretentious was the palace of Darius, built rather with a view to residence with substructure stairs, and doors fashioned in blocks of stone, and in front a columnar porch whence the living apartments were entered. Here, as in other buildings, bodyguards are filing in procession toward the throne, side by side with courtiers and nobles in flowing robes.

Though Persian palaces were as rich in plastic ornament as those of the Assyrians, their sculptures in relief were not used, as at Nineveh, for chronicling historic events but to portray the splendors of the royal household, its richly attired retinue, and the envoys and tribute-bearers from subject nations. The king is represented in various postures, at one time seated on his throne with scepter in hand while above him hovers, at another giving audience in Median garb, with curled hair and flowing beard, his guardian spirit. Elsewhere he is grasping by the horns a winged and fantastic monster which he kills with a single blow. Though inferior in vigor of expression and outline to earlier Assyrian sculpture, their statuary had more of dignity and thoughtful conception, combining in its highest development many of the best results of the art of central Asia. A peculiarity in their architectural embellishment was in the capitals of columns, which were in the form of kneeling animals with folded legs and slightly bended heads. In the slender, fluted, marble columns of the Ionic order, later adopted from the Greeks, the capitals often represented the heads and shoulders of unicorns or bulls, others being in the shape of cups from which depended petals or strings of beads.

After its conquest by Cyrus the elder, Babylon became the capital of the Persian monarchs, though at Susa, as at Persepolis, were many royal palaces similar in plan and proportions. Of those at Susa the ruins only of one have been explored, and these had so long been used as a quarry that the few which are left, except for the bases of pillars, are but of little value; yet beneath them are doubtless the buried monuments of long-descended dynasties which deeper excavations will disclose. Both bases and capitals were more elaborately carved than those at Persepolis, the latter being identical in design but altogether too large for the slender shaft. Inscriptions on the bases, executed by order of Artaxerxes Mnemon, read in part as follows: "Says Artaxerxes, the great king, the king of the countries, the king of this earth, Darius my ancestor, built this edifice, and afterward it was repaired by Artaxerxes, my grandfather," this being Artaxerxes Longimanus, the son and successor of Xerxes.

At Pasargadae, once the Persian capital, are the remains of a royal residence, on one of the pillars of which is a portrait with the inscription, “I am Cyrus, the king." Here also is the mausoleum of Cyrus, richly adorned with gold and tapestries until plundered by the Greeks in the time of Alexander the Great. It is a small gable-roofed structure, surrounded with pillars and resting on huge slabs of polished marble laid in terrace-like and pyramidal form.

Of the Median dynasty it has been said that no empire of such extent has left so few traces of its existence, the only sculptural monument found at Ecbatana, the capital, being a colossal but mutilated lion. Yet it was a great city, several miles in circumference, and with a palace and citadel surrounded with seven walls, each one over-topping the other by the height of its battlements. The palace appears to have been more magnificent than those of Susa or Persepolis; for as Polybius relates, it was paved with marble and roofed with silver plates, even the woodwork being coated with the precious metals.

Of Greek, Roman, and Moslem architecture and art, all of which left their impress on the land of Iran, nothing need here be said; for these will be treated in later portions of this work. Of the Parthians, who became masters of the country about the middle of the second century BC there is also much to remind us, especially at Ctesiphon, which they built as the winter residence of their monarchs and later made their capital. Here, during the Sasanian dynasty, was erected the Tak-i-Khosra, or throne of Khosru, in the shape of a palace hall, 400 feet long and 150 in height. In front was a stately portico of marble columns, and on the ceiling were represented in golden stars the signs of the zodiac. Worthy of mention also are the monuments erected by Shah Abbas of the Safi dynasty, whose capital was at Ispahan. Chief among them were his two palaces, profusely decorated with gilding, with mirrors ornamented in arabesque, and with pictures of historic episodes.

The modern capital of Ispahan, some thirty miles in circuit, is one of the most attractive of Persian cities, containing some of the finest and most richly decorated structures of oriental design, as the palace of the Seven Courts, erected in the midst of spacious grounds by the successor of Shah Abbas. Fronting on a central plaza nearly a mile in length, and glittering with ornaments of gold and silver is the great mosque of Mesjid-i- Shah, the most imposing of Persian temples, and near it is that of Luti Ollah, almost as striking and magnificent. Of more than fifty colleges the largest, named after one of the sultans, is approached through a portico of Tabriz marble, with pillars of fantastic design, the courtyard, flanked by a mosque with cupola and minarets, being entered through brazen gates finished in silver and adorned with floral designs. The bazaars of Ispahan, stocked with the richest of fabrics and other wares, extend for miles in almost unbroken line; yet the city is shorn of its old-time splendor, some of its streets being lined only with debris and some of its quarters entirely deserted.

Of Teheran, the former capital, the inner portion is still encircled by the wall of mud which protected it in the days when Nadir Shah returned from the sack of Delhi with the famous Peacock throne, now standing in the treasury of the imperial palace amid the crown jewels and the heirlooms of Persian sovereigns. In this palace dwelt the late Nasr-ed-deen, who through much European travel had acquired progressive ideas, and these he displayed by introducing western elegance into the home of oriental luxury, especially in his audience chamber, the most handsome of Persian halls. By his great-grandfather, Fath Ali, was erected a palace whose inner and private chamber was almost a museum of art, with historic and hunting scenes, and with portraits of all the chief officials of his realm, of envoys from foreign lands, and of the thirty sons of his many wives. But of the modern art of the Persians no

mention need here be made; for it is in artistic decoration and manufactures that they most excel, and these will be treated elsewhere in connection with other oriental lands.

To build the causeway on which were hauled from Arabian quarries the stone required for the great pyramid of Cheops required the enforced labor of 100,000 men for a term of ten years, and to build the pyramid itself was the task of an additional score of years. The workmen were changed every three months and were, fed on garlic, onions, and bread. Yet, hard as was their lot it was no, worse than that of the artisan during the reign of the Pharaohs, as appears from the following extract from the descriptions of ancient writers: "The stone-cutter who seeks his living by working in all kinds of durable stone, when at last he has earned something, and his arms are tired he stops; but if at sunrise he remain at rest his legs are tied to his back. Shall I tell thee of the mason how he endures misery? Exposed to all the winds while he builds without any garment but a belt, he is worn out with work and becomes wearied all at once; he is utterly exhausted; for there is always a block to be dragged in this or that building, a block of ten cubits by six; there is always a block to be dragged to the scaffolding poles to which is fixed the bunch of lotus flowers on the completed structures. When his work is quite finished, if he has bread he returns home and during his absence his children have been beaten unmercifully by the tax-gatherer."

The second pyramid of Giza, built as the mausoleum of Chephren, of the fourth Memphite dynasty, about 3100 BC as estimated by Lepsius, was little inferior in dimensions to the great pyramid, having a base 690 feet square and a height of 447 feet. It is not improbable, however, that its original size was much smaller, certain peculiarities pointing to enlargements, with the addition of a new sepulchral chamber.

Among the finest of Egyptian obelisks were those erected by Hatasu, daughter of Thothmes I, in front of the temple of Jupiter Ammon. They were red granite monoliths, plated in the center with gold and covered with most delicate hieroglyphics.

Heliopolis was probably the most ancient city of the Egyptians, or so at least, as Diodorus relates, it was accounted by its inhabitants. Among its temples was the "Mansion of the Prince;" that is to say of Ra, the sun, who was supposed to have reigned as king of Egypt, making this his dwelling place, Heliopolis being merely the Greek word for Pi-ra, or city of the sun, as it was named by Egyptian priests. Though a small place, it exercised no little influence on the development of civilization, especially through its college, where some of the most famous of Greek philosophers acquired their first knowledge of the natural sciences. All that now marks its site is a red granite obelisk on which is inscribed the name of Usurtesen I, a monarch of the twelfth Theban dynasty, who, according to Lepsius, reigned about 2300 BC.

Sais, on the Rosetta branch of the Nile, the residence of the Saite kings of the twenty-fourth dynasty, was noted for the learning of its priests, the ruins of massive walls marking the enclosure in which stood their sacred edifices. Near the town of El-Mansoorah are the remains of a temple of Isis, 600 feet in length and built entirely of granite which must have been conveyed in boats from a distance of several hundred miles. At the mounds of Tamis, not far from the site of Pelusium, are obelisks whose inscriptions tell of a large temple erected in the twelfth dynasty, and later embellished by Rameses II and his successors. At Bubastis was also an imposing temple of red granite, and here was held, in honor of the goddess of that name, the greatest of Egyptian festivals.

That few remains older than those which belong to the days of Nebuchadnezzar have been discovered on the site of Babylon is due to its destruction by Sennacherib, who, as he says, “pulled down, dug up, and burned with fire the town and the palaces, root and branch, destroyed the fortress and the double wall, the temples of the gods and the towers of brick, and threw the rubbish into the Araxes.” When Alexander entered the city, he found the temple of Bel a mass of shapeless ruins, as later were all its edifices; so that "Babylon the great" became merely a quarry for the building of towns in its neighborhood.

As there was no building stone in Babylonia, except that which was imported, brick was mainly used, as I have said, for building, and in this they were imitated by the Assyrians, notwithstanding that the latter had an abundance of excellent stone, with alabaster for ornamental purposes, while, with the use of the fragile material, their edifices fell rapidly into decay.

From the little that has come down to us of Babylonian art, it appears that they excelled in painting rather than in sculpture, as appears in the images portrayed in brilliant colors on their palace walls, contrasting with the sober tints on those of the Assyrians, who were strongest in sculptural effect.

The dove is a familiar figure in Assyrian and other bas-reliefs of Semiramis, who is often associated with the goddess Ishtar. According to a Greek legend which was accepted as historic until refuted by modern discoveries, Nineveh was founded by Semiramis, daughter of the fish-goddess, who reigned conjointly with her husband Ninus for more than 50 years, and after his death enlarged and beautified the cities of Babylon and Ecbatana. Her son conspiring against her, she was transformed into a dove, and flew away to the "Land of the Silver Sky," where was the mount of the gods.

The ruins on the great platform of Persepolis are among the finest in the world, pointing to the existence of many colossal buildings, with magnificent colonnades and vestibules, all fashioned of the grey marble contained in the mountain nearby. Among them were the palaces destroyed by Alexander, not in the frenzy of drunkenness, as described in Dryden's ode, but as an act of retaliation and for the effect it would produce.

It is related that some of the palace walls of Persian monarchs were covered with plates of gold, the canopy above the golden throne resting on pillars of gold inlaid with gems, while that of his couch was in the shape of a golden vine, precious stones of enormous value representing the grapes. But these are the statements of Greek writers, whose imagination, when discoursing of "the great kings,” often got the better of their discretion. The ancient Persians neglected home industries and arts; for, as they boasted, all the products of the earth were theirs by right of conquest, and thus it is that little but architectural remains have been unearthed from the sites of Persian cities.

Art and Architecture: India, China, and Japan

Oh! Lotus-leaf, I dreamt that all the earth,
Held naught more pure than thee, held naught more true;
Why, then, when on thee rolls a drop of dew,
Pretend that 'tis a gem of priceless worth?
—Ancient Hindu Peom

Ice-flakes are falling fast
Through the chilly air, and now
Yonder trees with snow-bloom laden
Do assume the wild plum's guise,
With their mass of snowy flowers
Gladdening winter's dreary time.

Lightly woven must the garments be,
Garments of mist that clothe the coming spring;
In bold disorder see them fluttering,
Soon as the zephyr breathes above the lea.

But in the autumn tide
I cull the scarlet leaves and love them dear,
And bid the green leaves stay, with many a tear,
All on the fair hill-side;
No time so sweet as that.
—Ancient Japanese Poem

Before passing to Hindustan and its monuments, some reference may be made to the art of the Phoenicians and Hebrews, though this is a subject that need not here detain us; for the civilization of the former was essentially industrial, such art as they possessed being borrowed from the Egyptians and Babylonians, while for their architecture the men of Judea depended largely on the Tyrians, a monotheistic religion and the strictness of the Mosaic code forbidding the representation of deities in sculptural or pictorial forms. The first Hebrew temple was the tabernacle or tent erected in the wilderness from plans of divine revelation, as they believed, and from these they departed but little in other religious edifices. Thus, except that it was double the size, the design for the Holy of Holies in the temple which Solomon built was identical with the one in the tabernacle. The building itself, though surrounded with a spacious court, was of no great size, and intended chiefly for a shrine and for the safekeeping of the sacred vessels of gold and silver. Of the interior the principal ornaments were the golden plates which overlaid the walls, adorned with the figures of cherubim and with carvings of flowers and trees, the winged cherubim of cedar which guarded the holy place being also covered with gold. In the second temple, built after the captivity, the only change to be noted was in the less costly materials and the absence of the splendid decorations and equipments which made the fane of Solomon the wonder of the world. In the third and last temple the original form was again restored, except that wings were added to the facade, giving it the form of a cube with a side of 100 cubits, the outer courts being increased in keeping with Roman ideas of architectural magnificence.

Of the aboriginal inhabitants of India there are neither written nor hieroglyphic records, all that tells of their existence being the circles and slabs of stone beneath which their dead were buried, with the remains of flint axes and other weapons and implements of the rudest construction, showing that they formed one of the earliest links in the chain of primeval races.

It was not until the advent of Aryan tribes from the plateaus of central Asia that civilization was first introduced into this great peninsula, extending in compact and unbroken mass from one of the largest and loftiest mountain ranges in the world far southward into the Indian Ocean. Driven by their conquerors into woodland and mountain recesses, there the natives remained for centuries, like animals dwelling in forest or cave; yet not all remained in barbarism, for even in the Vedic hymns, which speak of the aborigines as Dasyus or goblins, mention is made of their castles and fortresses, while the earliest of authentic records speak of some of the most powerful dynasties as of non-Aryan descent. Later came successive hosts of invaders; the Greeks, the Scythians, the Tartars, the Mohammedans, the Dutch, the English, the French, thus forming, as it were, a perfect museum of races, affording boundless opportunities for the study of man and his monuments.

The most ancient of Hindu temples were hewn out of caves, some of them, as at Karli, Ellora, and Elephanta, serving also as monasteries; but instead of belonging to prehistoric ages, as was formerly supposed, recent explorations show that none are much older than 200 BC, while many date from the seventh and eighth, and the most recent even from the twelfth century of our era. Of the cave-temples at Karli, near the city of Bombay, probably the earliest of a thousand or more, both Buddhist and Brahminical, one is in the shape of a basilica with circular apse and aisles divided by rows of columns, others being in the form of a square with a small oval chamber at the extremity. In the vicinity of Ellora the surfaces of Granite Mountains have been excavated for a distance of several miles, the structures being often of two stories and with the ceilings rent asunder, so as to permit open courtyards in the heart of the mountain. Most magnificent among them, and one of the finest specimens of Hindu workmanship, is the Kailasa temple, sunk into the solid rock to a depth of 270

feet and with more than half that width, yet for the most part open to the sky, and with porches, halls, colonnades, and columnar decorations all as complete as though it were built on the level ground. The pillars are of peculiar construction, a massive quadrangular base supporting a curved and swelling column surmounted by a projecting capital, above which a console-like member upholds the entablature. The entire surface is covered with bas-reliefs, representing in singular complexity the fantastic devices of Brahminical symbolism,—the figures of men and animals, with beings that are a mixture of both executed with, marvelous elaboration of detail. In the island of Elephanta, near the city of Bombay are also remarkable, cave-temples with mysterious chambers where Siva is worshiped his, features now smiling, now passive, and again distorted with rage, while from his altar a protruding hand is grasping a cobra, emblem of the god.

The Jains, a sect which first came into prominence about the middle of the fifth century through its attempts to reestablish Brahminism were esteemed as the foremost of architects as appears from, their Hindu appellation of Vedyavhan, or magic builders. Of their splendid but comparatively recent monuments,—the earliest belonging to the tenth century—the finest specimens are to be found in the Mysore, spacious courts and vaulted roofs, with arches, domes, and cupolas such as never before were seen in India, forming the architectural features of temples richly decorated in the most fantastic style of the Orient. Among them is the famous temple at Somnauth, destroyed by Mahmood of Gazni in 1025, and later restored with elaborate ornamentation, so that it is difficult to determine the period to which its remains belong. It was of no great dimensions, never exceeding 130 feet in length, but was enclosed with a superbly decorated courtyard, its sculptures superior to any of their class or age. Within the sanctuary was a great idol, though whether that of Siva or Vishnu has never been ascertained, and there were thousands of smaller images wrought in gold and silver and in many shapes.

No less remarkable was the temple erected by the merchant prince, Vimala Sah on the plateau of Mount Abu, which rising from the desert, like an island from the sea, to a height of 6,000 feet, is accessible only by pathways cut in the sides. It was built of white marble which must have been quarried at a distance of at least 300 miles from its site, and is one of the most ancient as well as most perfect of Jaina temples, of which, indeed, it serves as a type. In the central chamber, or cell, sits the cross-legged figure of Saint Parswanath, to whom the fane is dedicated, the cell terminating in a pyramidal roof, while in front is a portico of pillars arranged in the form of a church, the entire structure being surrounded by a courtyard with pillars serving as porticos to a range of cells, each with its cross-legged image but none of them tenanted by monks; for the Jains abjured monasticism. A few miles south of Mount Abu are the ruins of a large city with the remains of many Jain temples of similar construction.

Of Hindu pagodas the finest are those of Dravidian architecture, and foremost among them is the one at Tanjore, the grandest of all Indian temples, rising in fourteen stories to a height of 190 feet, resting on a base 82 feet square, and surmounted by a cupola fashioned out of a single stone. Surrounding it is the usual courtyard, in which are smaller shrines, that which is dedicated to Soubramanya, the son of Siva, forming one of the most beautiful specimens of structural decoration in southern Hindustan. By Ram Raz, a native authority, has been depictured the temple group at Tiravalur, contrasting strangely with the one at Tanjore, though also of Dravidian design. At first a mere village structure dedicated to Siva and his consort, it was enlarged and enriched at various periods until its surrounding court enclosed a space 940 by 700 feet, with several gopuras and shrines, though in the

plan there is little to be commended, the gateways, for instance, losing their effect through being spaced in bare, blank walls. Yet this was a form all too common in Dravidian architecture, as appears, among others, in the temple at Seringham, the largest in southern India, with its hall of 1,000 columns each fashioned out of a single block of granite. In the Ramisseram, on the island of Paumben, are combined most of the beauties and defects of the Dravidian style, its corridors, nearly 4,000 feet in length and with compound pillars and piers, producing, until recently disfigured by coats of paint, an effect seen nowhere else in Hindustan. Almost as imposing is the great choultric or hall at Madura, with its profusely sculptured facade, costing, it is said, £1,000,000, while on the temple adjacent was expended more than £3,000,000.

In Orissa are some of the purest types of Indo-Aryan architecture, the entire province being sacred ground, for every town is filled with temples and every village has its shrine. In all the peninsula there is no finer specimen of native Hindu art than the temple at Bhubaneswar, belonging probably to the seventh century and not to the largest class. Of about the same height as the one at Tanjore, it surpasses it in symmetry, though not in grandeur of outline, being composed entirely of stone and with every inch of its surface elaborately carved. As seen from the courtyard the sculpture is of surpassing beauty, though, as we read, there stood near the southern boundary of the former kingdom a temple carved in more delicate tracery than any in Hindustan. The Raj Rani temple is also a gem of Orissan architecture, with almost perfect details and play of light and shade. Below one of the pillars of the doorway are three kneeling elephants, above them as many lions, typical of the race, and above these a female Naga with snake-hood, while over the portal are represented the nine planets commonly found in the fanes of Siva and Vishnu. At Kanaruc is the famous "Black Pagoda," resembling closely the temple at Bhubaneswar and with infinite beauty and variety of carving. But most famous and also one of the most unsightly of all was the temple of Juggernaut at Puri, originally erected by a Kesari monarch who unearthed the image of the god after a century and a half of burial. It was surrounded with double enclosure of which the outer one was 670 by 640 feet, the temple itself being 300 feet in length, with many smaller shrines; but in its outline there was neither grace nor solidity, while coats of whitewash and paint have added still further to its deformity.

As with the hieratic, so with the secular architecture of the Hindus, most of its excellence is due to Dravidian influence, the palaces, kutcheries, and other buildings of the rajahs of southern India sometimes rivaling in splendor those of Mohammedan design. The Madura palace is built around a spacious courtyard flanked with arcades of elegant design and ornamented with the fine stucco work in shell lime peculiar to the presidency of Madras. On one side of the court, in the form of an arcaded octagon surmounted by a dome, is the Celestial pavilion, formerly used as the throne-room; on another is a stately hall 120 feet, long and 70 in width and height, with many of the features and much of the structural propriety of a Gothic building. The Tanjore palace, of comparatively recent date, is of similar plan but inferior in execution, especially for its squat pilasters and clumsy moldings, the latter aping the Italian school. Elsewhere is seen an admixture of Hindu and Moslem styles, as in the garden pavilion of the Vijayanagar palace, whose scattered buildings represent the abode of royalty. In many modern palaces, and especially those of the nawabs of the Carnatic and of Lucknow may be observed the bastard Italian style which mars the details of buildings otherwise imposing through mass and variety of outline; for here was a style but little understood, and entirely unsuited to the country.

In central and northern India there are at least a score of royal mansions of exceptional interest or beauty, among the most interesting being those of Gwalior, though of its older palaces there are few

remains. One of the most perfect specimens was completed early in the sixteenth century, its facades being relieved by lofty towers crowned with cupolas of gilded copper. Later were added other mansions; especially those erected by Shah Jahan, forming together a picturesque and stately group. More ancient were the palaces at Chittore and at Udaipur or Oodeypore, whither Udya Sing removed his capital after the sack of the former by Akbar in 1580. One of the Oodeypore structures resembles Windsor castle in outline, and fronts on a noble lake in which are island palaces among the most beautiful of their class. Of magnificent proportions are the Bundeleund palaces at Duttiah and Ourtcha, the latter a most imposing group and with striking combinations in architectural design, though somewhat florid in detail.

Pictorial art in its proper sense did not exist among the ancient Hindus; for the mere figure-painting or bedaubing we should rather term it, of temple walls and pillars, cannot be classed under that head, though the miniature paintings of a later period were of unquestionable merit. Their sculpture, in common with their architecture, was essentially of a religious character, embodying the forms of Brahminical and Buddhist worship in such grotesque and fanciful creations that we wonder how this gentle race, whose Vedas foreshadow the doctrines of Christ and whose Buddha was the most benevolent of could have conceived the monstrosities sages, in wood and stone before which they bowed in adoration. At first their deities were of mystical and reposeful type, as appears in the figure of Lakshmi, the Indian Venus, and in the goddess of beauty with bejeweled fingers and feet enthroned in the pagoda of Bangalore. But presently these artistic conceptions give place to size distorted idols, in which ferocity, size, and multiplicity of organs serve as the stamp of superiority. Thus Siva appears in his war-chariot with six arms and several heads; eight-armed Bhadra, begirt with human skulls, is putting on his armor for the fray, and Dourga, the spouse of the former is mounted on a lion, and about to engage in combat with a bull-headed demon of gigantic stature.

Though Buddhism in its earlier form permitted no images except those of Buddha himself, it soon lost its purifying influence on the art as on the lives of its followers, the gods being blended together in all the grotesque and fanciful creations of the Hindu Olympus. Until the advent of the Jains, Buddha was omnipresent in Indian temples and topes, varying in form and size from the statues, 120 feet in height, carved out of the rock in the shrine at Bamiyan, to those in the temple-caves of Ellora and Kenhari, where the great teacher sits cross-legged in his cell, or stands forth in long, flowing robes to pronounce a blessing on his votaries. On the pillared gates of the tope at Sanchi were represented incidents from his life, his processions and ceremonies, with scenes of the battle and the siege, this being one of the oldest of his monuments and one of a few which bear traces of historic sculpture. While Buddha does not appear in the monstrous shapes ascribed to the Hindu trinity,—to Brahma, Vishnu, and Siva—as a rule the art of Hindustan was the handmaid of a religion symbolized in the most repulsive forms of idolatry that have ever been fashioned by the perverted ingenuity of man.

The short-lived empire of the Greeks, followed by the Greco-Bactrian dynasty, left many traces of Hellenic culture, and these were followed by other changes, both ethnical and dynastic. In the seventh century the Moslems first made their appearance in northern India, and in the opening years of the thirteenth a sultan is seated on the throne of Delhi. Presently comes Akbar the Great, the founder of the Mogul empire, an able and beneficent ruler, whose monuments, belonging to the middle of the sixteenth century, rivaled in splendor those of Europe. Thenceforth there was much in common between Hindu and Moslem architecture, and though in the last the use of statuary was forbidden, the royal palaces were richly adorned with gold and silver and precious stones.

By Shah Jahan, the grandson of Akbar, was founded the modern city of Delhi, or Jahanabad, as still the Mohammedans term it. He it was who erected the famous Peacock throne and the mosque of Jama Masjid, one of the most graceful of Indian temples, though in ancient Delhi were many beautiful monuments, as the Kala Masjid, or black mosque, so called from the color which time has given to it. Built of marble and red sandstone, standing boldly forth from a rocky eminence, surmounted by lofty minarets and domes of white marble, and with handsome portal approached by a magnificent stairway, the Jama Masjid, or great mosque, is an oblong structure, 260 feet in length, its cloistered courtyard, paved with granite and open at the sides commanding a noble view of the former capital of the Moguls. This is one of the few mosques designed chiefly for external effect, and though by no means in the purest style of Moslem art, the effect is extremely picturesque.

A less pretentious but more elegant monument, perhaps the most elegant in all Indo-Mohammedan architecture, is the Moti Masjid, or Pearl mosque, at Agra, also erected by Shah Jahan. Externally there is little attempt at decoration, but entering the courtyard through the principal gateway, the scene is of surpassing loveliness, the entire space, enclosed on three sides by a colonnade, and on the fourth by the seven arched portals of the mosque, being covered with white marble in most beautiful designs. Still more famous among Agra monuments is the Taj Mahal, built as the mausoleum of the favorite wife of Shah Jahan and but slightly impaired. Says Fergusson in his History of Indian and Eastern Architecture: '"It is modern American architecture almost impossible to convey an idea of it to those who have not seen it, not only because but from of its extreme delicacy, and the beauty of the material employed in its construction, the complexity of its design. If the Taj were only the tomb itself, it might be described: but the platform on which it stands, with its tall minarets, is a work of art in itself. Beyond this are the two wings, one of which is a mosque which anywhere else would be considered an important edifice. This group of buildings forms one side of a garden court, beyond which is an outer court entered by three gateways, and containing in the center of its inner wall the great gateway, a worthy pendant to the Taj. Beautiful as it is, the Taj would lose half its charm if it stood alone. It is the combination of so many beauties, and the perfect manner in which each is subordinated to the other, that make up a whole which the world cannot match."

From Gaur, formerly the Pathan capital of Bengal, a mass of ruins extends for nearly a score of miles along the bank of the Ganges, mosques still in use being found among the remains of temples, towers, and tombs half buried beneath the luxuriant vegetation of the Gangetic basin. Among the finest of the buildings still partially preserved are two handsome similar ornamentations, mosques whose facades are covered with imitations of foliage in low relief, similar ornamentations, usually in terracotta, being common in Mohammedan temples.

At Kantonuggur, near Dinapur, one of the most picturesque of temples, its central pavilion surrounded with octagonal towers, is entirely covered with figure and other subjects in terracotta representing the habits, usages, and attire of the Bengalese at the beginning of the eighteenth century. Of the labor bestowed on this and other monuments it is impossible to form an estimate though it is, related that the erection of the Taj Mahal was the twenty years' task of twenty thousand men.

Of the many forms of Saracenic and Indo-Saracenic architecture there are none more elegant than those which are found at Ahmadabad in the province of Gujrat, where are also strong traces of Jain influence. Chief among them was the Juma Masjid erected by Ahmed Shah, who here established his capital early in the fifteenth century. Above a facade almost classic in its simplicity are fifteen domes

arranged in symmetrical order and supported by 260 pillars of most delicate workmanship. Its minarets, famous in eastern story, have been destroyed by earthquake; but elsewhere in the city are others from which their shapely outlines have been reproduced.

At Benares, the holy city of the Hindus, a city famed and powerful before Rome was founded or Cyrus had shed luster on the Persian empire, a structure less than fifty in length and the same in height is the principal temple erected on the sacred ground where, forty centuries ago. Vedic Brahmins reared their fire-altars and bowed in adoration to the sun. Built to replace the one destroyed by Aurungzebe, whose mosque still raises its lofty minarets in insult over the most venerated spot in Hindustan. it is a double edifice, with shapely and richly decorated spires rising above pavilions ornamented in the most finished style of oriental art, all its details being clearly defined and in perfect taste. Entirely out of place, however, is the bulbous dome of the Saracenic order which surmounts the connecting porch.

Of all Mogul palaces the most magnificent was that which Shah Jahan erected at Delhi toward the middle of the seventeenth century. Encompassed with a wall of red sandstone surmounted with towers and kiosks, it occupied a space 3,200 by 1,600 feet, the main entrance fronting on a spacious avenue known as the Chandni Chauk, or street of silver. A deeply recessed portal gave access to a vaulted hall, resembling somewhat the nave of a Gothic cathedral, and opening into a courtyard from which extended a two-storied bazaar, leading in one direction to the Delhi gate and in the other to a garden adorned with fountains and marble pavilions. In the main court, 550 by 385 feet, stood the great hall of audience, in the center of which, on a marble platform inlaid with precious stones, was the gorgeous Peacock throne. Elsewhere was a private audience chamber profusely decorated, and on its roof an inscription that has since become famous; “If there be a heaven on earth it is this.”

There were many courts, with harems and private apartments without number, the entire group covering an area more than twice the size of the Escorial or of any European palace. Of all its splendor little now is left, the remnants of this architectural dream being surrounded with a hideous barrack-yard and serving in part as a mess-room.

More elegant, but less magnificent is the palace which Shah Jahan erected at Agra, now contained within the walls of the fort where European residents found refuge during the sepoy mutiny. In its center, says Fergusson, "is a great court, 500 by 370 feet, surrounded with arcades and approached at the opposite ends by a succession of beautiful courts opening into each other through gateways of great magnificence. On one side is the great hall of the palace,—the Diwani Aum—supported by arcades of exquisite beauty. Behind it are two smaller courts, one containing the harem and the other the private hall, built entirely of white marble inlaid with precious stones." Here also British vandalism has been at work, one of the pavilions of polished white marble, adorned with arabesques and gems in floral designs being covered with coatings of whitewash to serve as the residence of an English officer.

Of the palace which Akbar erected at Alia habad only the audience hall remains, and this has been so disfigured as to be almost beyond recognition; for the structure has been converted into an arsenal, with a brick wall around its colonnades, its richly decorated pavilions being destroyed, and that which is left covered with plaster and whitewash. An attractive feature was the pavilion of the Chalis Situn, or forty pillars, these being arranged as two concentric octagons, with a similar series resting on the inner colonnade and surmounted by a dome. But Akbar's favorite residence was his palace at Futtehpoor, where still are to be seen the three pavilions erected for his favorite sultanas, with

outlines and carvings extremely beautiful and picturesque. Here also is one of the most stately of Indian mosques, its magnificent portal entered beneath a semi-dome in the style peculiar to Saracenic architecture.

Of other mosques and palaces, did space permit, mention might here be made, as well as of the palatial mansions of the rich, where European forms are adapted to oriental conditions. But we must conclude our sketch of Asiatic countries, of which only China and Japan will be added to those already described; for while elsewhere, and especially in Ceylon and Further India, there is much of interest, it belongs rather to the monstrous than to the beautiful, and it is not with the monstrous that we are now concerned. Moreover, as in Hindustan itself, the story of their art is written in decay.

In China, as in all the Indias, hieratic architecture and art received a strong impulse from Buddhism, which, in the former country, first made itself felt about the opening of the Christian era, and gradually spread throughout the land. Yet Hindu and Chinese architecture are essentially different, the one being symbolic and serious in style, the other fantastic, though by no means wanting in elegance, and with strong peculiarities in decorative scheme, especially in the polychromic treatment which is one of its essential features. In the smaller temples the stories diminish in size as height is attained, each receding from the concave roof of the one below, while the galleries are often adorned with gaily painted pilasters, with trellis and carved woodwork, dragons standing forth from the rafters and bells depending from projecting points giving to the buildings the appearance of curious toys. Many of them are surmounted with cupolas or slender towers, the richly colored and gilded taa, rising in many stages to a tapering point, as in the famous porcelain tower at Nanking, being probably an exaggerated form of the Indian dhagoba or tope. More practical in character is the secular architecture of the Chinese, much of it belonging to an early epoch, the great wall erected across the northern frontier of the empire some twenty-one centuries ago for protection against the Tartars.

While both Chinese and Japanese architecture is appropriate for business and domestic purposes, and with much that is interesting and instructive, here is not in either country anything that deserves the name of an architectural monument. Though the former excel in art manufacture and decorative art, as in the fabrication of silks, of porcelains and bronzes, and of figures in ivory and wood, their sculpture, with its quaint extravagance, is altogether lacking in little better in dignity, little better in fact than mere carving, while their painting is extremely monotonous in style and almost without trace of imagination. It is in truth remarkable that one of the most ancient nations in the world, where wealth has been accumulating for scores of centuries should have made so little progress in artistic development, should have left so few records of its past and display so little desire to leave to posterity any worthy memorials of the present. Though expressing their reverence for the dead in handsome and costly mausoleums, the Chinese never expend their means on anything that will perpetuate their own memory among future generations.

At Ho-nang, opposite Canton, is one of the best preserved of Buddhist temples, an eighteenth century structure but in the style belonging to a much earlier date, reproducing in Chinese forms many of the features of the rock-hewn temples of India. The grounds, which cover several acres, are divided into courts and gardens; around which are cells for 200 monks, with the usual offices of a monastery. A series of halls extends along the side of an inner court, the largest of which contains gilded images of the three Buddhas, with all the appliances for daily service, another apartment serving as a lady chapel, where women are the principal worshipers. At Peking are several Buddhist monasteries of

more imposing proportions, and here, surrounded by an enclosure four miles in circuit, is the great temple of Heaven, where once a year the emperor offers sacrifice on a marble altar in the form of a circular terrace 210 feet wide at the base and 90 at the summit. At another altar, surmounted by a structure with triple roof of deep-blue porcelain tiles, prayers are offered by the emperor in seasons of drought or famine. The temple itself, a fifteenth century structure but still in good repair, is built on a terraced pyramid and in three stories, each with convex and broadly projecting roof, the upper one capped with a gilded ball, beneath which is the main altar.

The Porcelain tower at Nanking, founded early in the fifteenth century by the emperor Yung-lo, as a token of gratitude to his mother, was the finest of Chinese taas, though its originality and beauty of outline did not preserve it from destruction during the Taiping rebellion. It was in nine stories, of octagonal form, and some 260 feet in height, its walls encased with white porcelain bricks and the overhanging roofs of each story fashioned of green porcelain tiles. Hung on chains made fast to the eaves from an iron rod at the apex were five large pearls, supposed to protect the city from flood, fire, tempest, and civil tumult, hundreds of bells and lanterns being fastened to the eaves. There are other towers in China of similar design, though none that will bear comparison with the Mohammedan minars of Hindustan.

Though Chinese efforts at monumental architecture have resulted only in failure, it is not so with their domestic architecture; for the dwellings of the wealthy are adorned with an exuberance of colors, carvings, and other decorations which, though not in keeping with western notions are well adapted to the Orient. Red is the favorite color for pillars, blue for floors, and green for open work, while everywhere is a profusion of gilding, the garden court around which the structure is usually reared being adorned with floral designs, with fountains and grottoes more fantastic than the buildings themselves, yet not out of place in the flowery land. The imperial palaces differ but little from the mansions of the rich, except that they are on a larger scale and with more elaborate ornamentation. The summer palace at Peking consists of a number of detached pavilions, between which are beautiful landscape effects in water and woodland scenery. The Winter palace is of more solid architecture, a basement of masonry supporting a superstructure of wood; yet both are wanting in dignity, as compared, for instance, with the structures reared by Shah Jahan at Delhi and Agra.

Until recent years the art of Japan was linked with that of China, and in neither country has architecture, so far as it is related to the fine arts, ever attained to excellence, while apart from other causes, destructive earthquakes have tended in the former to restrict the rearing of great monumental piles. In seismology, it may here be mentioned, the Japanese are well advanced, though the days are not long gone by when earthquakes were attributed to a huge catfish buried beneath the islands, with its head under Oshiu and its tail under Kyoto.

Wood is largely used for building purposes on account of the frequency and at times the severity of seismic shocks, of which, between 1885 and 1890 there were no less than 3,500 in various parts of the empire. These were followed by the great earthquake of 1891, with the center of disturbance in the main island, shattering embankments, hurling bridges into rivers, killing more than 7,000 people, and totally demolishing 142,000 houses. Conflagrations are less sweeping than in former ages, when three times in as many centuries Tokyo was almost obliterated, on one of these occasions a space being swept by the flames, eight miles in length by half a mile in width. In memory of the

conflagration which occurred not long after the great fire of London, was erected over the pit where thousands of victims were buried the mound of Destitution, and nearby, the temple of the Helpless.

As in China, the royal palaces, though larger, are little superior in design or construction to those of the noble and wealthy. Surrounded with beautiful gardens, and now converted into a museum of Japanese arts and manufactures, is the imperial palace at Kyoto, the former capital of Japan, and the most sightly and cleanly of its three great cities. Here also is a feudal castle whose richly decorated audience chambers, whose moat and drawbridge, massive walls and tower-capped gateways belong to the sixteenth century. In the suburbs are many Buddhist and Shinto temples, some of them miniature cities in themselves, with pleasure grounds and fairs that are always open. Most ancient of all and most frequented is the Kiomidzu temple, built on the slope of the Teapot hill, with its innumerable shrines and huge stone gateway, beneath which mendicant priests present their begging bowls. Extending thence is a continuous chain of sanctuaries, prominent among them being that of Chioin, with its massive embankments, its shaded avenues, and its altar surrounding a golden shrine and covered with gilded ornaments. At intervals are heard the notes of its great bronze bell, weighing 75 tons and struck on the exterior surface by a swinging beam producing tones and reverberations as soft and sweet as the low sad strains of an organ touched by a master's hand. On opposite sides of Kyoto are the Kinkakuji and Ginkakuji, that is to say the gold and silver-covered pavilions, both used as monasteries, both of extreme antiquity, and surrounded with gardens in the highest style of landscape art. To the former belongs a miniature palace with gilded roof and lacquered walls, still almost intact after the lapse of many centuries. Worthy of mention also are the Sanjiusangendo, or hall of the 33,000 Buddhas, a veritable storehouse of images, and the temple of Imari, the goddess of rice, in whose grounds the sacred foxes still hunt their prey.

The sanctuaries of Shiba the suburb of Tokyo, are entirely, Buddhist, and gorgeous of aspect in comparison with those of the national religion, Shintoism, of which the Mikado is pope and potentate. Temples and tea-houses; bell-towers fountains, and arches, all have the same grotesque, high-ridged roofs, with the graceful curve of the palm leaf, and extending eaves supported by a maze of carvings colored in gold and scarlet and green. There is the shrine of the goddess Imari, guarded by foxes; the magnificent shrines grouped round the tombs of the shoguns, or military chieftains, the bronze Buddha, the lotus cistern, and the temple frieze rich in sculptured imitations of flowers and fruits. Entrance to the tombs is through a wide court containing hundreds of stone lanterns and thence into a court of bronze lanterns, from which rises a tower with ponderous bells, among the lanterns being six of large size, presented to the three princely families Go San Kee. From this the visitor passes into a temple courtyard and into the praying Chambers of the priests, adjacent to which is the chapel of the shoguns of lyenobu, lyeyoshi, and lyemochi.

Nikko, that is to say the Brightness of the Sun, ranks first among religious centers, and in perfect keeping with its sacred character are the silent and stately avenues, the ancient temples, and the richly decorated mortuary shrines before which worship myriads of white-robed pilgrims. Prominent among them are the sanctuaries and sepulchers where for centuries two mighty shoguns have rested beneath the shade of consecrated groves. Near one of them is a pagoda whose spiral summit is more than 100 feet high, innumerable gayly colored bells depending from its roof and with the strangest of animal figures at the base. Here also was erected, in 767, the first temple in honor of the faith which Gautama Buddha taught, and elsewhere are mausolea so richly adorned with sculpture as to justify the saying, "He who has not seen Nikko must not pretend to good taste. “

In its proper sense sculpture had no place in Japan until Buddhism largely supplanted the Shinto faith whose tenets were averse to art, white paper only, as an emblem of purity, being used in the decoration of temples, while on flower-wreathed altars were polished mirrors as symbols of the all-seeing Eye. Of the colossal bronze images of Buddha, the most gigantic is the one in the temple at Nara, more than 80 feet high, though in sitting posture, enthroned on a huge lotus-flower, as is the oriental custom. It was fashioned in parts and skillfully welded together, as in truth it must be to support its 450 tons of weight. In parallel rows on the head, which is encircled by a disk 150 feet in circumference, are nearly 1,000 curls, the eyes being three feet in diameter, and the right hand, raised as in benediction, having fingers six feet long. There are many other Buddhas, some of inferior size being preserved in the museums of London and Paris, and there are household gods and goddesses in many forms, often partaking of the humorous and grotesque. Thus Daikoukou, the god of wealth, is a plump and plethoric divinity, seated ' on a bale of merchandise and grasping a miners hammer; Hotei, the god of contentment, is yawning in lazy attitude; Yebis, the fish-god, is astride of a dolphin, his loins begirt with seaweed, and Benten, the Japanese Venus and goddess mother,—a homely Venus withal-has in one hand a pearl of great price and in the other a latch-key. The powers of nature are also symbolized, the typhoon being represented by the dragon and the tempest by the wind- god Raiden, with bag of assorted storms.

It is in the field of natural history that Japanese sculptors and painters most excel, the figures being reproduced with wonderful precision and infinite elaboration of detail. Among the most ancient are two fish with golden scales from the castle of Nagoya, and not inferior in workmanship was the ‘Sleeping Cat' of Zingoro, the greatest of seventeenth century sculptors and the architect of Nikko and Kioto temples. "Wood under his touch,” it was said, "grew plastic as wax; processions of divinities moved along his friezes; dragons reared themselves aloft, and animals crouched and gamboled beneath the roofs and along the columns." Of recent date are the bird figures of Suzki and Otake, their feathers reproduced with wondrous dexterity of manipulation, while Takenouchi and Yamada have given us some of the best of human figures, though with too much rigidity of outline.

In their way the Japanese are no less a nation of artists than the French, and with schools more ancient than those of the renaissance, the oldest, dating from the sixth century and of Buddhist origin, with others, as the National. Popular, and Naturalistic schools founded between the eleventh and eighteenth centuries. Though few of them are now in existence and none are influential, there is as much diversity of sentiment as in European art circles, the conservative party adhering to bid models and methods and the liberal party being in favor of foreign ideals and modes of treatment.

About the year 1890 the Mikado, desiring to encourage a taste for art, took into his service a number of painters and sculptors selected for their ability by a special commission, and to whom was granted a stipend and a social status never before conceded to the profession. Among them was Hashimoto Gaho, whose landscapes are of the best, as also are those of Hoyen and Motonobu, while Kubota received a gold medal for his figure paintings at the Paris Exposition of 1889, and of Chikdo Kishi, a Kyoto artist, it is related that when depicting a tiger for the Columbian Exposition, he was seized with a frenzy of inspiration which developed into insanity.

While as a people the Japanese are unquestionably gifted both in painting and drawing, their art is essentially realistic and without trace of ideality, never attempting to appeal through the senses to that which is above the senses. In some of their drawing books landscapes and animal figures are

reproduced with scientific nicety of observation; in others are represented in colored prints scenes from fashionable life, together with the more homely environment of the common people, the crowded streets of populous cities, and local fairs and merry-makings, in which the feats of jugglers and athletes play a conspicuous part. But in all this, while there is much of the fantastic and grotesque, there is little of beauty, and in that little there are few attempts to rise above the merely ornamental. Nevertheless in art, as in other directions, progress has been very decided within recent years; so that in its higher branches Japan may presently compete with the nations of the west, as now she does in its application to objects of common utility.

In their carvings in ivory and wood, and especially their natsuke carvings, in their cabinetwork, their lacquer-work, their porcelains and bronzes, their textile fabrics, and other branches of decorative and industrial art, the Japanese have few superiors. It has indeed been prophesied that in many departments of manufacture they will at no distant day compete in the markets of the world with England and the United States; nor is this prediction so extravagant as at first sight it may appear. First of all labor is exceptionally cheap, even the most skilled of operatives being content with 50 to 75 cents a day, while for the majority of workmen half these rates will suffice. Then we have seen within recent years how readily the people adapt themselves to modern appliances and methods. Moreover, their remarkable imitative faculty is supplemented by much that is original and excellent of its kind their artistic, surprises and interpretations giving a pleasing aspect even to that which is familiar and commonplace. They have also many secret processes which others have attempted in vain to imitate; so that at European and other expositions her contributions in the useful and decorative arts were in the nature of a revelation.

In his Art of Decorative Design Doctor Dresser declares that Japan could supply the world with the most beautiful domestic articles that can be anywhere procured; and says Thomas Cutler in his Grammar of Japanese Ornament and Design, "If we study the decorative art of the Japanese, we find the essential elements of beauty in design, fitness for the purpose which the object is intended to fulfill, good workmanship, and constructive soundness, which give a value to the commonest article."

To this it may be added that in style it is not as in Europe, the result of processes grafted one upon another by the schools of ancient and modern nations, but something distinctly per se, something purely national, or with but slight trace of foreign influence. Hence mainly its appreciation by the outside world, and of this appreciation there is no better evidence than general imitation in the form of commonplace reproductions, without symptom of the taste and skill which distinguish true Japanese art from that which is merely Japanesque. But of this subject further mention will be made in chapters specially devoted to industrial and decorative art.

The most ancient of Hindu monuments, so far as is known, are the columns erected during the third century BC in the Ganges district by Prince Asoka, commemoration of his edicts and his faith. They were about 40 feet high, 10 feet in circumference at the base, tapering toward the summit and terminating in a circular capital; often surmounted with the figure of a lion, the emblem of Buddha. Some of these monoliths are still to be seen at Delhi and Allahabad; but not of course as they stood in the days of Asoka. On one of them was a life-size statue of the prince, and another, named the "Column of Gold" was regarded as the palladium of Hindustan until Tamerlane stripped it of its golden covering.

By Asoka were also built, as is related, 70,000 or 80,000 of the topes or tomb-mounds of India, in many of which are relics of Buddha and his disciples. Most of them are simply tumuli erected on terrace-like substructures; but in some there is an attempt at architectural decoration, the edifice being surrounded with a peristyle of slender columns and approached through an enclosure in which are handsome portals. In Ceylon is a tope built about 150 BC on a granite terrace 500 feet wide, the superstructure being still 140 feet high, notwithstanding its partial destruction.

The picturesque ruins of ancient Delhi occupy the slope of a hill overlooking a plain where was the site of three oriental capitals. Among them is the Kutab Minar, or great minaret, built of white marble and red sandstone, some 50 feet in diameter at the base as it originally stood, and 260 in height, with projecting and richly sculptured balconies, the highest of which was 215 feet from the ground. In beauty of design it resembles somewhat the campanile which Giotto built for the cathedral at Florence, while in detail, especially in its fluted moldings, it far surpasses the Italian structure.

When the palace of Shah Jahan at Delhi fell into the possession of the Britsh, it was looted in barbarous fashion, each one laying hands on whatever came in his way. Of the marble platform inlaid with precious stones, where once stood the Peacock throne, a considerable portion was torn up for use as table tops. Of these there are two in the India museum in London, one adorned with birds by a Florentine artist, and the other containing an execrable copy of Raphael's Orpheus.'

At Ajmir are the remains of a mosque belonging to the thirteenth century, with a screen of remarkable beauty. Cufic inscriptions giving variety to the architectural embellishments without interfering with the plan. Nowhere else are such beautiful specimens of surface decoration as appear in this and other mosques where Saracenic designs are combined with Hindu delicacy of treatment. During Lord Mayo's visit to some of the most richly Sculptured pillars of this temple were dragged from their place to form a triumphal arch. Roman vandalism, even as exemplified by Mummius in the sack of Corinth, could go no further.

In Roussclet's India and Its Princes the caves of Elephanta are thus in part described: "At some little distance from the landing place on the island of Garapoori is a shapeless mass of rock, which represented of old a gigantic elephant, and which has procured for the island the name of Elephanta, which the Portuguese bestowed upon it. Behind a dense thicket is found the commencement of a handsome flight of steps, cut in the solid rock of the mountain, which leading to the principal excavation, comes out on a large platform planted with trees; and, going on a short distance, we suddenly find ourselves in front of the great cave, whose massive columns seem to be sustaining the mountain.

Two columns and two pilasters form three great square gateways, which afford a view of the dark and mysterious interior of the temple. Scarcely has one crossed the threshold of the sanctuary when one feels overcome by that vague and indefinable impression which the great works of man's hand always produce. Rows of columns, losing themselves in the darkness, support a huge ceiling; above which and, as it were, crushing it, appears the enormous mass of the mountain. The walls are covered with lofty figures in relief, and the fantastic forms add to the mysterious effect of this subterranean hall. The order of the columns is one of the most beautiful that the Hindus have ever imagined, and is eminently appropriate to the architecture of the temple caves. At the extremity of the majestic colonnade that leads from the principal gateway is an altar supporting a gigantic bust, representing a divinity with three heads, two of which are only in profile. The principal face of the idol is calm and

benevolent, and, though mutilated, full of expression; the forehead is covered with a lofty diadem, in the shape of a mitre, adorned with delicate carvings in imitation of necklaces and trinkets.

In Ceylon, as in India, are many rock-hewn temples, though less improved by art than those on the mainland and more grotesque in design. Buddhist architecture may be studied to good advantage in the ruins of Anuradhapura, for 1,000 years, beginning about 400 BC the capital of the island. Among them are two of the largest dhagobas of which any remains have been preserved, surmounted with hemispherical domes more than 1,100 feet in circumference, and with the tops of the spires 240 feet above ground. Of similar dimensions, and more sacred in character, was the Ruanwelli dhagoba, erected above a collection of relics and with its inner faces adorned with paintings of historic scenes. By a monarch who reigned about 250 BC was built a relic-shrine to contain the jawbone of Buddha, which dropping from the skies, as tradition relates, settled upon his crown.

In Mongolia there are few monuments, and there are not even towns or villages worthy of the name; for the inhabitants are essentially a pastoral people, their wealth consisting of flocks and herds, while the best of their territory has long since been appropriated by the Russians and Chinese. Tibet has many hundreds of temples and monasteries, the finest of which are on the hill of Potola in the suburbs of Lhasa, where also is the palace of the Grand Lama.

Among the ruins of Pagan in Burmah, eight miles in length and two or three in width are the remains of many temples, of which several of the finest are still kept in repair. One of the largest of them is that of Ananda, in the form of a square with a side of 200 feet and with projecting porticos. Like most of the others it is in seven stages, each smaller than the one below, the topmost story resembling a cell and rising to a height of 180 feet.

A similar edifice is that of the Thapinya, or Omniscient, and a smaller one, though richer in detail, is the temple of Gaudapalen. Burmese dhagobas resemble those of Hindustan, except for those built in the present century, which are of more complex design. Near Mongun is one known as the Kong Madu surmounted with a dome 100 feet in diameter and surrounded with 784 stone pillars divided into quadrants by four gateways of stone. Except for temple architecture stone is little used in Burma, even the kings palace being of wood, though an elaborate and costly edifice its entire surface, being painted in fantastic designs or covered with gildings, carvings, and lacquer work.

At Bangkok, in Siam, the finest specimen of hieratic architecture is the great tower of the Wat-ching pagoda, with its florid but striking ornamentation. Civic architecture is well represented in the hall of audience, in front of which are two colossal idols, remarkable only as specimens of sculptural deformity. In Java are many monuments, greatest of which is the temple of Boro Buddor, in the form of a dhagoba with 72 small domes, each containing a statue of Buddha. It is in nine stories, with galleries nearly a mile in extent lined with sculptures on both their faces, many of them well preserved and of historic interest. In the tree and serpent temples on the eastern side of the island, there is also much that when interpreted, will throw light on Hindu annals and mythology.

Sir William Chambers describes the abode of a rich Chinaman which, he says is of very common design. Though with only 65 feet of frontage, it has a depth of 260 feet, is entered by a hall about 20 feet wide running almost through the building, and has shops fronting on the street. The apartments on either side of the passage are identical in plan. First there are two study rooms, adjoining which are two small bedrooms, and then two pairs of reception rooms overlooking the garden court, where

are flowerbeds, fountains, and fish ponds. The dining saloon, supported by columns, is 60 by 30 feet, being carried across the entire width of the building, and behind it are the kitchen and offices. There is also a hall where the family idol is worshiped, with more saloons and bedrooms beyond the courts, and over the dining saloon are apartments for visitors. In all the houses movable partitions are kept in readiness to subdivide the larger chambers.

Hashimoto Gaho, one of the court artists in the employ of the Mikado, gives an interesting description of the studio of a Japanese master where he studied about the middle of the present century. The master belonged to the Kano school, founded in the fifteenth century and largely under Chinese influence, so that the students were chiefly employed in copying the works of others, with little chance for the development of individual talent. A candidate for admission, after being approved, was received with great ceremony by the lord, as the master was always termed, and must belong to the privileged classes from which the sons of merchants and mechanics were strictly excluded. The novitiate must present to his chief five fans and 80 sen; to the son of the chief and the lady of the house a similar sum, with three fans to the former; to the children 20 sen for the purchase of toys, and to his future comrades in the school 250 sen and three gallons of sake, with presents to each member of the household from the steward downward.

Thus the new comer was required to pay in entrance fees what might appear to him a small fortune; appear to but thenceforth the only payment was a nominal sum for board. In a space twelve feet by six in the darkest corner of the studio he placed his desk, his brushes, box of colors, etc., and here he worked from seven in the morning till ten at night, sleeping on a mat and never leaving the house without permission If possessed of sufficient ability and application, he would be permitted to graduate after some fifteen years of apprenticeship, and then might open a studio of his own.

At present there is little of the true artistic spirit in Japan, the people being too much engaged in reconstructing their institutions on western models. Artists are seemingly indifferent to the business interests of their profession, working only when it suits them, breaking engagements, and never regarding their orders from a practical point of view. In olden times the trained artist, inheriting the secrets of many centuries of experience, worked for a single master, who treated and paid him well, furnishing the best materials that the country could produce. Foreign markets, with their uncertain and fitful demands have taken the place of mediaeval patronage, and for these the artist must work, if he would earn his daily bread, selecting that which pays best while catering to the untutored tastes of those who imagine themselves connoisseurs in Japanese art.

A favorite theme in the domestic art of the Japanese is the takara bune or ship of riches, wherein are seated the seven deities whom, among the numberless divinities of eastern Asia, they selected as their gods of wealth. He who would have lucky dreams must place a drawing of this vessel under his pillow on the second night of the New Year.

Phryne, thy human lips shall pale,
Thy rounded limbs decay;
Not love nor prayer can aught avail
To bid thy beauty stay.

But there thy smile for centuries
On marble lips shall live;
For art can grant what love denies,
And fix the fugitive.

When all our hopes and fears are dead,
And both our hearts are cold,
And love is like a tune that's played,
And life a tale that's told,

This senseless stone, so coldly fair,
That life nor love can warm,
The same enchanting look shall wear,
The same enchanting form.

And there upon the silent face
Shall unborn ages see
Perennial youth, perennial grace,
And sealed serenity.

And strangers, when we sleep in peace,
Shall say, not quite unmoved,
So smiled upon Praxiteles
The Phryne whom he loved.

The architecture and art of the great nations of antiquity have been sketched in the preceding pages, of those who dwelt in the valley of the Euphrates, on the delta of the Nile, on the plains of Iran and India, in China and Japan, together with such mention of the native races of America as their cruder forms of artistic conception would seem to require. In Europe it is but natural that art should first make its home in the peninsula which is separated only by a narrow strip of sea from the coast of Asia; nor is it to be wondered at that the earlier structures and sculptures of the Greeks should have much in common with those of Egypt Assyria, and Persia, though never marred with their stiffness and rigidity of outline. But these influences did not long endure, and nowhere do the achievements of civilization assume such dazzling luster as on the page of Hellenic story,—the word Greece, it may here be observed, being of Roman origin, and never used by the Greeks themselves. Yet it was a brilliance that was not destined to endure; for the classic period of art did not exceed a century and a half; so that the son of him who saw its dawn may have lived to see its decadence. While it lasted, however, it was a phenomenon such as the world had never witnessed before, and never again may witness.

From the time of the pyramid builders the history of architecture has been one of continuous progress and change, but not always of continuous improvement, so far at least as artistic qualities are concerned, each period and almost every nation having its own peculiarities, though in none was the prevailing style entirely original. Thus, as in their earlier structural compositions, the Greeks borrowed from the Egyptians and Assyrians, and the Romans from the Greeks, both medieval and modern architecture are largely in imitation of the classic. Yet in all there are certain distinctive features which cannot be readily mistaken; so that from the plan of a building, or even from its decorative scheme, may be determined the era and school to which it belongs. The various orders that have succeeded or merged into each other will form in part the theme of later chapters of this work; nor is it my purpose here to speak of the dramatic or other literature of the Greeks, though closely connected with their art; for both music and poetry may find expression on canvas, in marble or bronze, or in architectural embellishment, as well as in sound or on printed page.

As with architecture, so with sculpture and painting, progress has been incessant, if not always in the right direction; for there is a limit to human achievement, and especially in the sculptors art it is possible that the Greeks attained to the highest degree of excellence of which mankind is capable. By some it has been said that Greek art is lacking in expression; but in answer to this charge may be quoted the words of a well-known critic, himself a sculptor of repute. "Greek artists were enlightened by the philosophers, and the gods represented by their sculptors were pure, passionless, and beautiful. In their art the Greeks themselves were gods, and with all our efforts we find it hard to creep upward after them; for the eminence on which they stand is beyond our reach.

Their grand works are ever new, and always produce fresh enchantment; but m order to obtain a proper conception of their merits, and to understand the sublime and beautiful therein expressed, the taste must be cultivated by long study and experience. To surpass the best works of the Greeks is a hopeless task; to approach them is a triumph."

In order to understand the genius of Greek art, let us consider for a moment the environment and characteristics of the nation which, occupying so small a corner on the great stage of the world, yet played its part so grandly; for the world has seen nothing more magnificent than the great military dramas enacted at Marathon, at Thermopylae, at Salamis and Plataea, followed by the brief but brilliant classic era which came to an end with the conquest of Hellas by Philip of Macedon. Small as was their country, it contained all the elements of the picturesque, together with all that was requisite for defense, for commercial intercourse, and for industrial development. Surrounded on three sides by the sea and on the fourth by mountain barriers impassable except through narrow defiles, its shores were indented with harbors, many of them running far inland and affording ready access to the

coast, while fertile plains and valleys, alternating with lofty mountain ranges yielded an abundance of cereals and fruits, of pasture for flocks and herds, of valuable timber, and of the useful and precious metals. The Greek was both mariner and mountaineer, familiar with the sea and fond of adventure and roaming; yet though he loved well the ocean breeze, he loved better the breath of his painting native hills, bathed in the transparent atmosphere which clearly revealed their beauty of form and outline. Like the later dwellers in Alpine regions, he owed much of his bodily and mental vigor, his alertness and versatility, his keen and ready wit, to the physical features of the land that gave him birth. But more was due to his simple mode of life, his athletic training, his cleanliness, his frugal diet, and his temperance in all things.

A nation thus nurtured, to whom freedom was a birthright, and in which every citizen was inspired with the noblest ambition of manhood, could not be otherwise than a nation of heroes; and no wonder that modern literature and art never tire of reproducing the splendors of Greece, of throwing upon them the side-lights of many subsequent ages. From the free and natural life of the Greek his art unfolded with a beauty of its own, the tastes of this nation of artists being guided and developed by an education that was essentially artistic. At an age when the modern student is wrestling with the intricacies of Plato and Aristotle, a Greek youth would criticize with the skill of a connoisseur the design of a temple or the outlines of a Phidian statue. With foreign languages he did not trouble himself; since nothing that they contained would compare with the treasure in his own. Poetry, rhetoric, and philosophy were his favorite studies, though to politics he gave much of his time, for to become a statesman was his chief and often his only ambition. Music was an essential part of his training, and to play on the flute and sing to the accompaniment of the harp were among the accomplishments of polite society. In a word, whatever was beautiful belonged to the culture of the Greeks; for as Zeno declared, beauty was the noblest flower of virtue, the most handsome men being selected at Elis to carry the sacrificial offerings, while the supple and shapely victors at Olympian games were honored with statues and with the choicest seats at public festivals.

It is in truth refreshing to turn from the art so painfully evolved under the incubus of eastern despotism to the pure artistic atmosphere of Greece, beneath whose sky the human race first claimed its heritage of freedom. Wonderful as was the civilization of the Orient, now revealed to us through modern discovery, it was one with which we are not in sympathy; for while we cannot but admire the results, we shudder at the cruelty by which these results were attained. The story of Egyptian, of Babylonian and Assyrian architecture and sculpture is written in human suffering, in the misery of innumerable multitudes crushed like grains of sand beneath pyramids and colossi. It was not so with the Greeks, among whom none were more highly honored than the artist and the artificer. Nor was there any place in their art for the grim deities which dwelt by the Nile and the Euphrates. They fashioned their own gods; fashioned them in human forms and with human attributes, removing only the limitation of mortality; for to them man was himself an apotheosis, the culmination of all things created, and to the gods they could ascribe nothing better than the perfection of the human form. Their gods were also represented as heroes and athletes, at least one of them taking part in the Olympian Games, and even of human vices they partook, though in a measure softened and purified, while the beauty and strength of the mortal became in the immortal yet more beautiful and strong. The divinities of the earlier Greeks were regarded rather as companions and friends; for there was neither kingly nor priestly despotism to interfere with liberty of thought, and the childish fear of an avenging deity, common to Christian as well as to Pagan nations, was unto the Greeks as foolishness.

As with other ancient nations, the architecture of the Greeks was seen to best advantage in their temples, though there are monuments older than any of the temples; for the gods of the Pelasgic races, the first to rule in Greece, were worshiped on mountain tops or in groves where their voices were heard in the rustling of leaves. At Mycenae, wealthy Mycenae, as Homer terms it, surrounded as was Tiryus, with a wall of rough cyclopean masonry, is still in a state of fair preservation the tomb and treasury of Atreus, the largest and most perfect of its kind. It consists of two subterraneous chambers, built in horizontal courses uniting at the top in a pointed arch or dome, this form being afterward found in Italy and Asia Minor, and with certain modifications as late as the Middle Ages. The entrance was adorned with marble pilasters of various colors; the walls were richly sculptured, and the dome was lined with plates of bronze, the holes for the nails still appearing in several rows. Here and in other vaults was stored the wealth of the kings of Mycenae, of whom Atreus was one of the earliest,—tripods and vases, of gold, the richly decorated weapons and equipments of the heroic age, and garments of finest texture embroidered with purple and gold.

Chieftains are described by Homer as dwelling in stately edifices glittering with the precious metals, as travelling swiftly in chariots drawn by the powerful steeds of Argos, or in galleys manned by many oarsmen. But when dealing with sober facts, we can only, of course, accept as poetic imagery the brilliant word-painting of the Iliad, as where it gives to the palace of Alcinous brazen walls and golden doors having silver posts and lintels, while the abode of Menelaus is resplendent as the mansion of Jove himself. No temples, it may be remarked, are mentioned by Homer or any of the earlier poets, the gods dwelling above the clouds, where they feast on nectar and ambrosia, condescending at times to feast with mortals, as when Zeus banquets with the "blameless Ethiopians, and returning presently, disciplines sharply Juno, his wife, for untimely interference with his flirtations among Olympian goddesses.

Pelasgic civilization culminates with the Trojan War, and it was not until several centuries later that Hellenic culture began to make itself felt. Meanwhile the Cypselidae, a race with strongly marked Asiatic characteristics, had made of Corinth a great commercial city, the home of the nascent art of Hellas. Here ruled Cypselus about 657 BC, his son and successor, Periander being numbered among the wise men of Greece and exalting Corinth far above all other cities. It is even said that painting was first introduced by the Corinthians, and certain it is that their richly decorated bronzes, coffers, and other articles of luxury were in demand throughout the ancient world. Among them was the cedar chest of Cypselus, profusely inlaid with figures in ivory and gold, one of the most finished masterpieces of archaic art.

The earlier architecture of the Corinthians partook somewhat of Egyptian proportions and especially of Egyptian massiveness, as appears in a Doric temple belonging to the age of Cypselus, the diameter of the pillars being more than one-fourth of their height, while the architrave was one of the heaviest of which there are any remains. To the middle of the sixth century, so far as can be determined from its sculptural design, belongs the miniature temple at Ægina, its famous marble statues, as restored by Thorwaldsen, being preserved in the Glyptothek at Munich, while many of its Doric columns are still standing in a sequestered corner of the island, overlooking the gulf of that name and the Attic coast beyond. About this time was probably erected the first great temple on the Acropolis at Athens, destroyed by the Persians, as were many other Grecian fanes, most of those which remained being demolished or rebuilt by the Greeks themselves, as unworthy of their national greatness. Hence

nearly all the classic temples whose ruins have been preserved were built within half a century after the final overthrow of the Persians.

Before proceeding further a few remarks may be in place as to the temple architecture of the Greeks, wherein expression was given to the highest forms of Hellenic art In its original shape the temple was merely a hollow tree in which was placed an image of the presiding deity; then came a wooden house, and then one of stone, such as were used for the habitation of man, most of these earlier structures serving for the abode and not for the worship of the gods. In design they were extremely simple, and almost uniform in plan,—a rectangular building with peristyle or porticos, lighted from an opening in the center, and thence called hypaethral, or under the sky, the roof being of marble resting above the entrance on a richly ornamented entablature, where was the decorative scheme and the point of architectural emphasis.

In front of the pronaos, or vestibule, if intended for worship, was an altar on which sacrifices were offered in presence of the devout; in the naos, or temple proper, was a statue of the god, and back of this the opisthodomus, where were kept the treasures of the sanctuary, and often those of the citizens, thus taking the place of banks or safe-deposits, especially in time of war.

In the earlier temples columns were used only for support of the roof, and in all the elaborate ornamentation of later periods this purpose was always kept in view. It was in relation to the structural form and embellishment of the columns that Greek architecture was divided into the three orders known as the Doric, Ionic, and Corinthian. Of the Doric pillar, and especially of the triglyph which adorned its entablature, we have the prototype in Upper Egypt, as in the temple of Beni Hassan on the Nile. Between the triglyphs were the metopes, originally open spaces serving as windows, but later covered with tablets sculptured in relief. The pillars were without bases, resting only on the substructure, the massive, fluted columns tapering toward the top and surmounted by a plain, heavy capital. On the architrave were often golden inscriptions, with gilded shields suspended in token of victory. The ceiling and frieze were painted with the brightest of colors, the roof of the portico usually with golden stars on a ground of blue, contrasting with the simpler beauties of polished marble columns and statuary.

In grace and delicacy the Ionic order is as much above the Doric, as was the later Doric above the stiffness of Egyptian architecture; for the Greeks sought the beautiful everywhere, and whatever they found they were not slow to improve. Compactness is the feature of the Doric style; versatility of the Ionic, the latter showing much variety of design, with greater independence of the various members. The shaft of the column is more slender, its flutings more numerous and more deeply hollowed; above the square plinth on which it rests are two enclosing rings, and the capital is adorned with spiral volutes, probably of Assyrian origin. All portions of the entablature are partially covered with moldings; the architrave is in three faces, each slightly projecting beyond the one below, and with a lower cornice between it and the frieze. Of the origin of this beautiful style of architecture the following is the explanation given by Vitruvius here repeated in substance, for what it is worth. When about to build a temple to Diana, the Ionian colonists in Asia Minor bethought them of a new method which would improve on the Doric fashion of proportioning the column according to the form of a man. So they imparted to it the delicacy of the female figure, making the diameter one-eighth of its height, forming the base in twisted cords, like the sandals of a woman, placing on the capital volutes like the hair which hangs from her head, and fluting the pillar in imitation of the folds of her

garments. Thus were invented the two orders, one imitating the dignity of man, the other the beauty of woman.

While there may be some truth in this fanciful description, it cannot of course be accepted as sober reality, albeit the De Architectura of Vitruvius, though little esteemed in the time of Augustus, to whom it was dedicated, exercised a powerful influence from the early renaissance almost until the present day. If as to the earlier forms of the Ionic capital there is much difference of opinion, it is reasonably certain that the Ionian colonists borrowed their model from Nineveh, the curls of the volutes being probably suggested by the curved wire-work of Assyrian goldsmiths.

From an intermingling of the Ionic and Doric orders, but with the former strongly predominating, comes the style of architecture known as the Attic, in which the capital is less slender, the frieze much wider, and the capital projects more boldly in its strongly emphasized volutes. In both the Attic and Ionic is a lavish display of crowning and terminating members in graceful profile, rich in sculptural ornaments and without the garishness of coloring observed in the later Doric, pictorial decoration largely giving place to plastic art.

In the design of the Corinthian column is attributed to Callimachus, the idea being suggested, as is said, by an acanthus plant encircling a basket placed above the grave of a Corinthian virgin. This according to Vitruvius, who adds that is was intended "to represent the delicacy of a young girl whose age renders her form more pleasing and better adapted to such ornaments as may add to her natural charms." But here again we must look to Nineveh for the origin of the Corinthian capital; for in Assyrian sculptures it is clearly shown, while in the temple of Apollo at Miletus, erected at least a century before the lifetime of Callimachus, the acanthus leaf is arranged around the drum of the capital. The Corinthian is the most slender of Grecian columns, with a diameter ten times its height, deep semielliptical flutings terminating at the head in leaves, usually those of the acanthus, and often with double rows and branches rising above each other, the inner branches inclining toward the center where they meet in spiral wreaths and the curved, outer branches supporting the plinth. Thus in the entablature the transition from circular to quadratic forms is skillfully effected, while the richness of elaboration permitted by the introduction of floral designs gave to the Corinthian order the popularity which it has ever since retained.

Still another variety of columnar design was in the Caryatides originally used in the temples of Diana and representing the figures of her virgins. The introduction of human figures in conjunction with columns, or in place of them, was common in Egypt, India, and Persia; but the weight was supported on the uplifted hands, and not on the head as among the Greeks. It was a somewhat questionable style, though occasionally used with such taste that the female form does not seem out of place even when supporting a massive entablature.

And so with the giant frames which partially supported the roof of the great temple at Agrigentum, these being only adjuncts to the masonry, though their place would have been better filled by some purely architectural feature.

Before entering Athens, some further mention may be made of earlier Greek temples, and especially those of Diana at Ephesus and of Hera or Juno at Samos, both of which were essentially Greek and of magnificent proportions. The temple which Herostratus destroyed, and whose ruins were unearthed from beneath some twenty feet of soil, late in the present century, was the finest monument of

primitive Ionic art. An octostyle structure of pure white marble, it was 418 by 240 feet around its double row of lofty columns, each of the architrave blocks being 30 feet in length. The frieze was adorned with mythological figures, and many of the pillars were sculptured in high relief to the height of a man above ground, fragments preserved in the British museum showing that here was the workmanship of no common hands. After its destruction in 356, it was rebuilt in still more imposing outlines through contributions from all the cities of Asia Minor, the women of Ephesus selling their jewelry and plate, while many of the columns and other materials came as gifts from oriental monarchs. Alexander the Great it is said, on the night of whose birth the temple was destroyed, offered to pay the entire cost of reconstruction on condition that his name be inscribed on the pediment; but this the people would not permit; for though the conqueror of Greece and of the Orient, Alexander was not an Ephesian. In the days of Augustus it was used not only as a sanctuary, but as a museum and a bank; since nowhere in the world could treasures be more safely lodged than under the protection of Diana of the Ephesians.

To the same period and to the same order as the original temple of Artemis, belongs that of Hera at Samos, embellished and enriched by Polycrates, so that it became the wealthiest and most famous of all Grecian sanctuaries, the costliest gifts of friendly sovereigns and the masterpieces of Hellenic art being stored within its walls. Its dimensions were somewhat smaller than those of the Ephesian structure, which alone could rival it in splendor; but all that now remains is the fragment of a headless column which gives its name to the adjacent promontory of Cape Colonna. The statue of the goddess, like that of Artemis, represented an Asiatic deity, and though later identified with the Hera of the Greek mythology, had none of the queen-like aspect of stately "white-armed” Juno.

Of the first temple of the Pythian Apollo at Delphi, the founding of which belongs to a pre-historic age, no records have come down to us except that it was built of stone. Destroyed by fire in 548, it was reconstructed at a cost of 300 talents, collected from many Grecian cities, the Alkmaeonidae, an exiled Athenian family to whom the contract was awarded, also expending on it much of their private means. A combination of the Doric and Ionic orders, the former prevailing in exterior forms, its front was of Parian marble, its pediments and frieze were richly decorated with mythological sculptures, and on the architraves were many trophies, including gilded shields from the spoils of Marathon. On the walls of the adytum were inscribed the maxims of the seven sages; in the cella, as in Persian temples, fire was forever burning on the consecrated hearth, and here the mystic omphalos pointed to the center of the earth, while seated on a tripod in the adytum, the priestess inhaled the subterranean vapors that inspired her dubious prophecies.

More than all others, the Delphic fane served as a repository of wealth and as a mark for the despoiler, the Phoenicians carrying away the equivalent of $12,000,000 in gold and silver, and yet there remained sufficient to satisfy the rapacity even of Roman free-booters. From its treasures Sulla obtained the means to pay his legions; for the decoration of Roman sanctuaries Nero removed hundreds of brazen images, and for his capital on the Bosphorus Constantine transferred the priceless statues of the Heliconian muses.

Among other ancient temples were those of Zeus and Hera at Olympia, both simple structures of the Doric order, the latter adorned with statuary and reliefs representing the most ancient legendry of the Greeks. On an ivory throne, elaborately carved and richly inlaid with gems, was seated the Olympian Zeus in robes of figured gold, crowned with a wreath of olive, grasping with one hand the scepter, and

in the other supporting an image of victory. The god was of majestic figure and with ambrosial curls depending from his broad, commanding brow, embodying the idea as of one who ruled the world without effort and held it at his nod. Above the golden lions of the jeweled footstool, Hercules, Theseus, and other heroes, some of them descending from high Olympus, were engaged in conflict with the Amazons, such legendary combats being the favorite theme of the Greeks, as prefiguring their ultimate triumph over Asiatic races. It was in truth a noble statue and well worthy of the theme and the artificer, for it was one of the two great masterpieces of Phidias, "the sculptor of the gods," the other being the chryselephantine statue of Athena in the Parthenon.

Until the time of the Persian war Sparta stood at the head of the Hellenic confederacy; but here were no great monuments such as those of Athens and Corinth, even its temple of Athena containing little that was worthy of admiration, while its theater was of rough, hewn blocks, and in its porticos and colonnades were no elements of the picturesque. In truth the fame of Sparta rests almost entirely on her military prowess and on her intense but narrow patriotism. Her great men were eminent as soldiers but as nothing else. Rulers and politicians were abundant; but statesmen were few, and among them were none who belonged to the highest rank. In this nation of warriors we search in vain for any trace of the enlightened policy of Pericles; for any glimpse of the higher civilization to which the Athenians attained. To the latter, and even to other Grecian states, they were almost as inferior as were the Gauls to the great nation which fell under the scourge of Alaric and Genseric. Apart from some rude attempts at sculpture they had neither art nor literature worthy of the name. Oratory and philosophy they despised; letters they held in contempt, and they had neither music nor song, except for the singing of martial or sacred hymns to the accompaniment of the lyre. In a word they were merely a body of valiant and well-disciplined men-at-arms, while even their military reputation was tarnished by a debasing superstition which more than once brought them into discredit among the more cultured communities of Hellas.

Soon after the battle of Plataea the Athenians began to rebuild the city which the Persians had destroyed, adjacent quarries furnishing an abundance of material. Its two parallel walls were of rectangular blocks of uncemented stone, hastily constructed, except those of the harbors of Piraeus and Munychia, built by Themistocles for the protection of the fleet.

Erected amid the central plain of Attica, which is enclosed on three sides by on mountains and on the fourth by the sea, the Athens of the days of Pericles was built around the Acropolis, whose summit had stood the ancient citadel and in part the city itself, but now reserved for temples and other public edifices. Aside from these monuments there was nothing attractive in the new Hellenic capital. Its narrow and winding thoroughfares, unpaved, undrained, and littered with poisonous refuse, were flanked with unsightly dwellings that presented to the street the bare and windowless curtain-wall of a single story of wood or sun-burnt brick. Even the dwellings of the rich were entirely without pretension; for modesty in all that related to themselves and their households was one of the virtues of the community, and to erect a costly edifice for private use would have brought on its owner the contempt of his fellow-citizens. In later times and, especially during the Macedonian period, there were doubtless handsome residences with spacious courts and gardens, and well stored with works of art; but there was never in Hellas anything that could be termed a palace, the people reserving their means for temples and public buildings which, in truth, were on a magnificent scale.

Crowning the western brow of the Acropolis, and approached by a flight of marble steps, 70 feet in width, was the Propylaea, so-called because it formed the vestibule to the gateways of the citadel. It was a structure of Pentelic marble erected a few years after the completion of the Parthenon which it rivaled in beauty of outline and surpassed in originality of design. In the center were hexastyle porticos each with fluted Doric columns 29 feet in height and nearly five in diameter, their ceilings adorned in the most finished style of Hellenic art and supported by blocks of marble resting on the lateral walls. A court thus divided led to the wall of the citadel, pierced with five entrances of which the largest was in the center, those at the extremities smaller than the intervening pair, and all corresponding with the intercolumniation of the porticos. Beyond this was another court leading to the plateau of the Acropolis, and with Doric colonnade and entablature, as in the outer space. As projecting wings on each side were smaller structures, which may have served either as temples or lodges, their moldings brightly colored and their antae with an azure fringe resembling ivy leaf. Yet the uneven style of these buildings, with their entablatures abutting against the walls of the larger edifice, the beauty and simplicity of the group when considered as an architectural composition.

Opposite the southern wing of the Propylaea, Cimon, returning with the spoils of a victorious campaign against the Persians, erected the small but beautiful temple of Nike Apteros, or Wingless Victory. It remained almost intact until near the close of the seventeenth century, when it was destroyed by the Turks and the materials used for the construction of a battery, some portions of the frieze being now preserved in the British museum. In 1835 it was reconstructed from the remains of the original building, those which were lacking being replaced by terracotta casts. Yet the sculptures have been defaced beyond recognition, and in the edifice as now it stands there is little of artistic value.

Towering above the roof of the Propylaea was the colossal bronze statue of Athena Promachos; so-named because the guardian deity of Athens, the personification of pure and perfect womanhood, the queen of the air and the light, the patroness of science and art, was also a warrior "foremost in the fight.” This also was from the hand of Phidias, and as to size the greatest of his works; for including the base it was 70 feet in height, its crested helmet and uplifted spear serving as a landmark for approaching vessels, while so majestic were the proportions and so commanding the features of the virgin goddess that, as is related, the hosts of Alaric shrunk in terror from her gaze. The pedestal is all that now remains, though the figure has often been reproduced from Attic coins.

On the highest of the terraced platform of the Acropolis, on the site of the ancient temple which the Persians had destroyed, was completed in 438 the architectural glory known as the Parthenon, or Virgin's Chamber. Constructed entirely of white Pentelic marble, from the designs of Ictinus, and in the purest style of Doric art, it was intended merely as a monument in honor of Athena and as a storehouse for her treasures, without aiming at magnitude of proportion or novelty of plan; for the main features of the former building were reproduced and its dimensions not exceeded by more than 50 feet. The decorative scheme was entrusted to Phidias but was not entirely the work of his hands; the frieze alone, sculptured in low relief with figures representing the Panathenaic procession, being 520 feet in length.

Most of these sculptures, with casts from other fragments, representing so far as is possible the entire series of Parthenon marbles, have been preserved in the British museum, and in countless reproductions have been made known to the world. On the metopes and pediments were the famous

torso of Theseus, the well-known figures of the Fates, and the magnificent head of the steed yoked to the car of Night, with scenes from the legendry of Attica, as the combat between Athena and Poseidon. But the frieze was most remarkable for the classic beauty of its reliefs, color increasing their effect as the Athenians saw them in the days of Pericles. The festival of the Panathenaea, with its attendant procession, was among the most honored of Athenian institutions, its origin dating back to the reign of Cecrops, the Egyptian founder of the city and the author of its religious rites. In the long train which wended its way toward the eastern portal were the beauty and chivalry of Athens, fair maidens and handsome youths in chariots or on prancing steeds, minstrels and musicians, high priests and civic dignitaries, with oxen decked for the sacrifice; for was not Athens the city of Athena, her own city, its possession decreed to her who had produced in the olive the gift most useful to man?

In order to understand the interior arrangement, it should first be stated that the temple was not intended as a place of worship, but, as I have said, for the safekeeping of the treasures of Athena and of her chosen people. Though in front of her statue was a structure resembling an altar, it was probably intended for the victors in Panathenaic contests, who here received their prizes of golden wreaths and vases filled with olive oil. Through a portico of Doric columns was entered the pronaos, where were stored the sacred vessels, and whence a massive doorway led into the hecatompedos, so-called because it was 100 Attic feet in length, the space being divided by rows of pillars into a triple nave, and with another series of pillars forming a double gallery and supporting a partially open ceiling. Here were many vessels and ornaments both of gold and silver such as were used at the festivals, while in the opisthodomus, the rear compartment of the edifice, were the accumulated treasures of the confederacy of Delos, amounting in purchasing power to $100,000,000, as money is now computed.

But the main interest of the Parthenon was in the hecatompedon, with its forest of pillars, its 40 or more colossal statues, its 4,000 square feet of sculptures in relief all executed under the direction of Phidias, and in the adytum, which formed the Parthenon proper, his chryselephantine statue of Athena Parthenos. For this colossal figure, nearly 40 feet in height, representing the goddess in golden drapery and with golden helmet, aegis, and shield, was used metal valued at 45 talents, but so adjusted that it could be removed at will. The undraped portions of the form were of ivory tinted with the hues of life, face, hands, and arms being fashioned with joinings so perfectly wrought that they appeared as though carved from a single piece. The lustrous eyes, gazing straight forward into space, were treated in gems and enamel, and looking up to them was a winged figure of Victory resting on the right hand. The shield, resting on the ground and partially covering the sacred serpent, was richly decorated with battle scenes, and on the pedestal was represented the birth of Pandora in the presence of the gods.

Opposite the Parthenon, and intended seemingly as a relief to its severe simplicity of style was the Erectheium, its slender, graceful Ionic pillars contrasting sharply with the massive Doric columns which they confronted. Standing close to the northern wall of the Acropolis on the site of a former structure destroyed, by the Persians, it was the latest of its classic temples, completed probably on the eve of the Peloponnesian war. In form it differed from the rest, having no portico on its western front, but in its place one projecting north and south in the form of a transept, with the roof of the southern projection supported by Caryatides.

There was no pronaos, the eastern portico, which was somewhat lacking in depth, serving as the fane of Athena Polias and containing one of the most ancient of her statues, for before which a golden lamp was ever burning, this was the most sacred of Hellenic sanctuaries. Here also was the sacred serpent, the guardian of the Acropolis, and in another chamber the olive sprung miraculously from the soil, whence came all the fertile groves of Attica.

Such were the chief architectural monuments of Athens, though elsewhere were other and older monuments, especially those erected by Cimon, one of the wealthiest and most liberal of the Athenians of the classic age. Among them was the Theseum, on an eminence north of the Areopagus, built, it is said, for the tomb of Theseus, and serving at once as a mausoleum, temple, and asylum. It is one of the best preserved of Grecian fanes, being used in the Byzantine period as a Christian church, and now, as a museum of antiquities, containing some of the choicest treasures unearthed by recent explorations. A small but symmetrical hexastyle structure of the Doric order, its principal sculptures were on the metopes of the main facade and those which adjoined them on either side, the figures representing in bold relief the exploits of Theseus and Hercules.

To Pisistratus, cousin to Solon and tyrant of Athens, is attributed the founding of the Olympium, or temple of Zeus Olympius, south of the Acropolis, completed many centuries later during the reign of the emperor Hadrian; for the Athenians would have nothing to do with a monument intended to perpetuate the memory of a tyrant. When finished, chiefly through Hadrian's munificence but also from the gifts of foreign princes, it was one of the grandest edifices in the world, its interior divided into the usual compartments by rows of tall Corinthian pillars, while over the architraves were later suspended the gilded shields which Mummius gathered at the sack of Corinth. In the cella was a chryselephantine statue of Jove more than 40 feet high, the combination of gold, gems, and flesh-tinted ivory imparting such dazzling radiance that the god himself was supposed to dwell in his statue and kindle it with his lightning. Near the Olympium was the sanctuary of the Pythian Apollo, also attributed to the age of Pisistratus, as was the Lyceum, originally a temple of Apollo and probably completed by Pericles. Adjacent to it, but of uncertain origin, was the Gymnasium, the favorite resort of Aristotle and of the earlier disciples of the Peripatetic school, while the Academy with its beautiful gardens, where Plato lived and taught, owed something to the Pisistratids, as did many of the buildings and statues of the Agora and perhaps the Agora itself, where was the center of civic as well as of commercial life. On one side of the marketplace was a colonnade, backed by a supporting wall on which were the paneled paintings side of the marketplace that gave their name to the Stoa Poikile, where Zeno taught his many followers and handled roughly the doctrines of the earlier schools.

Among the most ancient of Athenian records are those of its drama, whose temples were originally rough wooden structures, often merely open platforms erected as the occasion required. It was in such buildings that Thespis acted his successive roles, and that the lust of the tragedies of Aeschylus was exhibited about 500 BC, his rival, Sophocles, who wrested from him the tragic prize some 30 years later, probably finding better accommodation for the collapse of one of these wooden frames led to the erection of a marble, or at least a stone edifice with rock-hewn tiers of seats, where afterward stood the Diony siac theater. Completed and restored, shown as is shown by its sculptures, in the second and perhaps in the third century of our era, this later temple of the drama was of solid masonry and of colossal proportions, large enough for the population of Athens and the strangers who came from afar to take part in the Dionysiac festival. It was roofless but covered with an awning, beneath which were marble thrones for those whom the people honored, and for the people

themselves, rows of seats extended in widening curves toward the summit, whence could be clearly seen the hills of "sea-born Salamis."

Of the earlier glories of Corinth, a flourishing center in the days of Homer, and long before his time known as the town of Ephyre, brief mention has already been made. When Athens was merely a village, Corinth was famed throughout the ancient world for her wealth her commerce, her resources, her inventions, and works of art. Here the first trireme was constructed, and through an ingenious device resembling the modern ship railroad vessels were transported across the isthmus to the waters beyond. In subsequent eras the chaste simplicity of Corinthian architecture, which had served as a model for Hellas, gave place to the more florid style which has been so widely imitated. The city was filled with temples theaters, and other edifices, rich in columnar ornamentation and statues of gold and silver, ivory, marble, and bronze; for as the head of the Achaean league and later as the ally of Rome. Corinth became the storehouse of the accumulated treasures of art, shedding luster on the departing glories of Greece.

At the sack and destruction of Corinth by Mummius, after the rupture with Rome, the spoils in gold and silver, in statuary and paintings, in vases, bronzes, and other articles of luxury were sufficient for many shiploads; yet much was sold on the spot and more was wantonly destroyed, or buried in the earth to serve as a quarry of art treasures for future ages. The finest and most sacred of statues were thrown to the ground, and on pictures worth many thousands of drachmas Roman soldiers played games of dice. Images were melted in the fire, so that veins of the base and precious metals were fused together in a single mass, and while the painted vases of the Corinthians are by no means rare, of their bronzes not a single specimen remains. Though rebuilt by order of Julius Caesar, Corinth never regained its former splendor a cluster of huts and a few remains of Doric pillars and of a Roman amphitheater occupying the site of the classic city of the isthmus.

In Asia Minor, in Sicily, in southern Italy, and elsewhere on the shores and islands of the Mediterranean, the Greeks established many colonies, in most of which were temples, theaters, and works of art; for it was the first care of the settlers to erect such buildings as were essential to their religious, civic, and social life. To some of them further reference will be made; for not a few of the colonies rivaled or surpassed the mother country, Syracuse, for instance, founded by Corinth and Corcyra in 735, containing at one time half a million of inhabitants, while the Doric settlement of Agrigentum became as Pindar terms it, "the fairest of mortal cities," famous throughout the ancient world for the grandeur of its public edifices. Sybaris and Croton, which the Achaeans built about 720,—the name of Sybarite becoming a synonym for the voluptuary—were the wealthiest of Italian towns, while the ruins of Paestum, a daughter of Sybaris, betokened her old-time splendors. A hundred years afterward Massalia, now Marseilles, was founded by Phocaean navigators, and Byzantium, later the queen city of the Bosphorus, owed its origin to a roving band of Megarians. Thus for the art of colonization, as for all other arts, the modern world is indebted to the Greeks; nor does it appear that the experience of more than twenty centuries has wrought much improvement on their methods.

The sculpture and statuary of the Greeks have thus far been treated chiefly in connection with temple architecture; but of their plastic art, developed from the carving of rude wooden images into the marvels which Phidias wrought in ivory and gold, some further description is required. At first, as we have seen, their deities inhabited the trunks of trees, or found expression in simple blocks of stone or

wood. Castor and Pollux, for example, being represented by two pieces of timber joined together by a ring and fallen, as was said, from the skies. Presently was given to these slabs and boards some tokens of personality; first the limbs and then the entire outline of the human figure, in clumsy doll-like fashion, but often crowned with diadems or decked with jewelry, after being carefully waxed and oiled and painted.

Daedalus, the artificer of the Cretan labyrinth, was the mythic father of sculpture, breathing life into these deified dummies, giving expression to their features, and to their bodies pose and shape. Hence arose the school of sculptors in wood, which preceded the age of marble and bronze, among the disciples of Daedalus being the architect of the Trojan horse, the "instar montis equum" of Virgil, which Pallas taught the crafty Danai how to build. The Pallas of Homer varied but little from the Pallas Athena of the Greeks, and so it was with other gods and goddesses who formed the subjects of Hellenic sculpture, each having special characteristics in dress, equipments, and attendants. Athena, whose principal statue has already been described, appears in saffron colored robes embroidered with scenes representing the strife with the giants. White armed Hera wears a diadem encircling her dark luxuriant hair, and among her attendants is Iris, the spirit of the rainbow and the bearer of heavenly messages to mortal men.

Artemis, queen of the chase, whose tunic, fastened above the knee reveals the symmetry of the fair-limbed goddess," has her stag-hounds at her side, and in her hands the bow of the virgin huntress or the torch with which she illumines the night. As the personification of female beauty Aphrodite is either undraped or draped only below the waist, the myrtle and rose being her favorite flowers and the dove her favored bird. Yet she becomes the bride of Hephaestus, one-eyed, deformed, and limp, the cunning worker in metals, who has forged so skillfully the thunderbolts of Jove and fashions for the dwellers in Olympus their golden sandals. In Apollo, the god of light and of song, are embodied the vigor and grace of perfected manhood, and Hermes, the fleet-footed herald of Zeus, with his tortoise-shell lyre or golden wand, was ever a favorite theme, inspiring, as is said the sculptor s earliest efforts.

Goddesses were somewhat careful as to their toilet and attire, Hera and others knowing well how to deck themselves in charming costumes, especially when about to play some trick on the gods. Wishing to appear before Zeus in captivating garb, Juno enters the chamber which Vulcan has fashioned, its massive portals fastened by a secret bolt which none but she can draw. First washing carefully her fair limbs, she smoothes them with rich oil,

Ambrosial, soft, and fragrant, which, when touched,
Within Jove's brazen halls, perfumed the air
Of earth and heaven.

Then, with only her hands for comb and brush, she proceeds to arrange her tresses, in what particular style. Homer does not tell us, but partly frizzed, as it would seem, and partly in longer curls,

That clustering hung
Round her immortal brow. And next she threw
Around her an ambrosial robe, the work
Of Pallas, all its web embroidered o'er
With forms of rare device. She fastened it

Over the breast with clasps of gold, and then
She passed about her waist a zone which bore

Fringes an hundred-fold, and in her ears
She hung her three-gemmed ear-rings, from whose gleam
She won an added grace. Around her head
The glorious goddess drew a flowing veil,
Fresh from the loom, and shining like the sun;
And last, beneath her bright white feet she bound
Her shapely sandals.

Thus it will be seen that in Olympian mansions the artist found sufficient inspiration for his most fanciful compositions. "In this panorama of mythology," says a writer on Greek sculpture, "we may realize how picturesquely the Greeks personified even natural phenomena and passing events. Chronos, or time, was an old man with hoary locks and the reaper's sickle; victory was embodied in a winged female with wreath of laurel, and virtues and vices were animate beings, curiosity being represented by Pandora, the pagan Eve, vengeance by Nemesis, and remorse by the Erinyes, or furies. The representative man of Greece lived in the midst of this religious symbolism, gay, graceful, and in his own sense devout. Poetry was his language, the athletic games and a certain orderly philosophy his education, and art his worship. The muses nourished and taught him; led him into the sphere of harmony, and whispered the secrets of the stars. Nymphs and fauns and dryads peopled his groves, and naiads and tritons his waters. He was at one with nature and she charmed him as a mistress charms a lover; so that existence itself was joy and life a perpetual holiday. Beyond all was a realm of shadows before which imagination slept. On the monumental tablets of the dead are no harrowing scenes of gloom; but sketches only of partings, or pleasing subjects of everyday occurrence, are sculptured above the inscribed names, under each of which is written. Christe, Chaire, 'Friend, farewell!' How simple it all sounds; but to our century how incomprehensible!"

From the poems of Homer, notwithstanding the glamour of romance, more may be learned of the prehistoric sculpture of the Greeks than from the few remains that have come down to us. Thus, while the golden torch-bearers for the palace of Alcinous, and the shield of Achilles, chased with figures of the heavens, the earth, the ocean; the cities, lives, and occupations of man were either poetic fancies or borrowed from oriental nations, it was not so with other descriptions of praehellenic art work. From his writings and those of Hesiod, we learn that the Greeks knew how to carve in ivory and wood, but not as yet in marble; that they were acquainted with all kinds of metal work, except for the casting of bronze and the welding of iron, while weaving and embroidery, as in the figured garments of Andromache, had prepared the way for pictorial art. Most of these processes they had learned from the Assyrians through commercial intercourse with the Phoenicians; for Nineveh was now in the zenith of her artistic as of her political greatness. Probably of Assyrian, and certainly of Asiatic origin, were the decorations of the treasury and tomb of Atreus and the sculptured lions above the gateway of Mycenae, similar figures being found at the entrance of a Phrygian sepulcher.

Corinth, as we have seen, was the mother of purely Grecian art, and here it was that the Greeks first learned how to model in clay, Butades of Sicyon, as Pliny relates, filling in a charcoal profile sketched by his daughter when taking leave of her lover, thus producing the first rude model for the bas-reliefs which later were among the glories of Hellenic sculpture. About the middle of the seventh century the

first sculptures in marble were executed at Chios, near which were the famous Parian quarries, Glaucus, it is said, discovering early in this century the art of welding iron, while Clearchus of Rhegium was accredited with the first bronze statue, fashioned of plates beaten out and joined together with nails for a Spartan temple of Jove, his mantle descending on Pythagoras, famed for his group of Europa and the bull. At Argos was a prominent school of sculpture before the age of Pericles. Ageladas, one of its leading exponents, noted for his statues of Zeus and Heracles, numbering among his pupils Myron, Phidias, and Polyclitus.

Endoeus and Antenor, whose works belong to the sixth century, were the first sculptors of the Athenian school, the former, whose Athena in ivory was transferred to Rome in the Augustan era, excelling in sacred statuary, and the latter known chiefly for his bronze group of Harmodius and Aristogiton, erected in the Agora after the expulsion of the Pisistratidae. To a somewhat earlier time belongs Perillus, commissioned by Phalaris of Syracuse, according to the familiar tradition, to construct a brazen bull in which to roast his enemies, and himself becoming the first of the tyrant's victims. The works of Hegesias and Critias, the former also one of the instructors of Phidias, are described by Lucian as strongly and sharply outlined, so that "he who would imitate them must betake himself to hard work, vigil, and water-drinking.” Before the strictly classic age there were several others of note, as Gallon and Onates, by whom were probably executed the statues for the temple at Aegina, and Calamis, who belonged to the age but not to the school, though his female faces atoned somewhat for the rigidity of his figures.

Myron was famous for his scientific treatment of the nude, and also for his animal sculptures, working almost entirely in bronze. More esteemed even than his 'Discobolus,' or quoit-thrower, was the figure of the cow which he fashioned for the Acropolis, numerous epigrams mentioning its life-like aspect, though nothing is known to exist from which it can be reproduced. Full of life and vigor is the disk-player, bending forward and downward with graceful play of curving limb, every muscle being strained for the delivery of the discus, as suggested by the forward movement of the body. Almost as highly valued, though not represented, as is the Discobolus, in modern museums, was his 'Ladas,' a victor at the Olympic games whose victory costs him his life; for at the moment of supreme effort the last breath is hovering on his lips. Another masterly composition was his 'Marsyas,' the satyr, awed at the sudden appearance of Athena, whose discarded flute he was about to seize as it lay on the ground. The hands are wide apart and the body admirably poised in the sudden check of impetuous motion. Yet while Myron was almost unrivalled in his portrayal of the purely physical, he did not excel in the higher forms of sculpture which give expression to mind and soul. "Corporum tenus curiosus, animi sensus non expressit," says Pliny, who adds that he exaggerated nature to give momentary effect to attitude.

Not only for its sculptors and painters, but for its warriors and statesmen, its poets and philosophers, the age of Phidias was one of brilliant and multiform glories. Returning, after the victories of Salamis and Plataea, the Athenians homeless but with abundant means, had rebuilt their capital on a far more splendid scale than that which the Persians had left in ashes. With promise of liberal rewards, Themistocles had invited the foremost of artificers in Greece and Asia Minor to aid in the task, while Cimon, as we have seen, expended his ample fortune, and to the same purpose were applied the spoils of war and the tribute money of the colonies. Within the fifteen years of Pericles' administration were erected not only the city itself, with its walls more than seven miles in length, its agora and other public edifices, but the great monuments of the Acropolis, the latter under the direction of Phidias.

"Thus," writes Plutarch, five centuries later, "came these sumptuous buildings to be of excellent workmanship, of grace and beauty incomparable, because every man in the exercise of his science did strive to excel others, to make his work appear greatest and most in show. But the thing to be wondered at was their speed and diligence; for whereas everyone thought these works were not likely to be finished in many men's lives and ages, they were all done and finished while only one government continued in credit and authority."

Notwithstanding its magnificent monuments, Athenian civilization in the days of Pericles was simple in the extreme; for though citizens of a great city, the men had none but natural tastes and few but natural wants. There was neither the tyranny of despotism, of priestcraft, nor of fashion; their rulers could be removed at will; their religion was one continuous round of cheerful, innocent festivity; from the gluttony, wine-bibbing, and gross dissipation of the Romans they were entirely free, and as articles of attire they needed only a mantle, a tunic, and a pair of sandals. They had neither domestic nor business cares, and until an hour before sundown, when was taken the only substantial meal of the day, they were free to pass their time discussing politics in the agora, criticizing in the temples the most recent gems of sculpture or listening at the theater to the latest tragedy of Aeschylus or Sophocles. In many of the great scenes portrayed in these works of literature and art, most of the citizens, including the authors themselves, had been among the participants. For his Persae, for instance, Aeschylus, whose description of the battle of Salamis will live as long as the world endures, gathered inspiration solely from his own reminiscences, for he was himself among the combatants. The success of the artist depended less on patrons than on the public, by whom his efforts would be finally judged, for nearly all the best statues were intended to adorn some niche or cella among the temples of the gods. Never perhaps was there a more vigorous and intelligent community than the Athenians of the earlier classic age; nor is it easy for us to realize their many-sided culture and the public spirit which their struggle for liberty had kindled into an intensity of patriotism.

A native of Athens, where he was born about the year 500, Phidias began his career under the instruction of his father Charmides, a painter by profession and belonging to an era when, in technical methods, pictorial art was far in advance of sculpture. Later, as we have seen, he studied with Ageladas of Argos, and it was probably under his instruction that he fashioned the monumental group erected at Delphi to commemorate the battle of Marathon. As the tutelar divinity of Athens and the personification of deified womanhood, Minerva was his favorite subject, his bronze Athena of Lemnos being executed for the Acropolis, his Athena in gold and ivory for the Achaean city of Pellene, and his Athena Areia, in marble and wood with gilded garments, for Plataea. But on the three works already mentioned chiefly rests his fame, and especially the Athena Parthenos, the delight of his fellow citizens, who nevertheless accused him—unjustly as it would seem, though he was never brought to trial—of stealing a part of the gold entrusted to him for the purpose. It was Phidias who gave to statuary and sculpture the qualities which before they lacked, combining the simplicity and freshness of nature with dignity and grandeur of conception, so that it was said if nature herself had been a sculptor, she could have done no better. Especially did he possess the gift of the ideal, gods coming forth from his chisel as though descended from high Olympus amid all the splendors of Olympian majesty. "For Phidias the gods thunder; on him they smile; and who but he has seen the lightning-glance of their countenance?" So declared his many admirers; nor did they greatly exaggerate.

While statues forty feet in height, even if made of ivory and gold, would be somewhat out of place in modern temples, it was not so in the Parthenon, where was combined the most finished workmanship

of Phidias, Ictinus, and Callicrates, producing a monument unrivalled for grace of composition, perfection of detail, and complete embodiment of the essential principles of art.

An army of the best workmen in the world was at their command, and though of the famous Parthenon sculptures, few were from the hands of Phidias, most of them were from his designs and all were executed under his superintendence. Not even in the noblest conceptions of Michael Angelo have beauty and majesty been expressed in forms so pure and sublime; for as Zeus stood alone and supreme among the gods, so did Phidias, "the sculptor of the gods," stand alone and supreme among artists.

Though Phidias was the central figure in classic sculpture, many others were grouped around him; for this was a busy and brilliant epoch, an era of temple building, when ability and zeal were quickly recognized and well rewarded. For the school of Samos Polyclitus, whose works were warmly eulogized by such authorities as Lucian, Aristotle, and Pliny, won some portion of the glories which belonged to the great Athenian sculptor. Though inferior in dignity and majesty of conception, he surpassed him in rendering the symmetry of the human figure, especially in the vigor of youth and with the elastic tread of the athlete. Like Phidias, he grew rich by his art, his statue of Diadumenos, a young victor in the games, raising his hands to clasp the wreath above his head, selling for more than 80 talents, or the equivalent of $100,000, Bronze was his medium for athletes, and marble for gods and women. While the former were strongly and massively built, with powerful limbs and broad expanse of chest, they were so lightly posed as to add grace to the muscular development, which never seemed to be exaggerated. His 'Astragalizontes,' a group of naked boys throwing dice was among the treasures in the palace of Titus, and for his Amazons warlike maidens lusty and fair, he was especially celebrated. But the chryselephantine statue of Hera was his masterpiece, the goddess being draped in golden garments, crowned with a diadem embossed with figures of the graces and seasons, and seated upright on a throne covered with a golden vine.

Alcamenes, a pupil of Phidias, assisted in the decoration of the temple of Zeus at Olympia, and to him are ascribed, but on somewhat doubtful authority, the sculptures on its western pediment, representing the struggles of the Centaurs and Lapilhae. As with Phidias, deities were his favorite theme, and especially did Lucian commend his 'Venus', executed for a temple garden in the suburbs of Athens, while Cicero speaks well of his 'Hephaestus,' and another valuable work was his chryselephantine statue of Dionysos. Agoracritos, the favorite pupil of Phidias, was best known for his marble statue of Aphrodite, fifteen feet high, carved out of a single block, and crowned with a diadem sculptured in relief. Of those whom Myron instructed Lycios excelled, in suppleness and grace of attitude, Pliny speaking of his 'Boy with a Censer' as equal to the work of his master. A more ambitious composition was the group where Zeus is deciding the contest between Memnon and Achilles. Both were honored with a place on the Acropolis, as also was the bronze Trojan horse of Strongylion, whose statue of an Amazon was so much esteemed by Nero that he never parted with it, even when on his travels.

Of the three Amazons offered in competition for the temple of Diana at Ephesus, that of Polyclitus won the first prize, the Mattel Amazon in the Vatican being probably a copy of the Phidian statue, while the one which Cresilas executed has been preferred to either, engravings on gems and a marble replica in Rome portraying the figure as wounded in the breast, the folds of the chiton falling loosely around the limbs. To Cresilas has also been attributed the portrait bust of Pericles which has served

for numerous copies, all showing the broad helmet-covered brow, the short but curling hair and beard, and a grandeur and dignity of mien suggestive rather of Phidias. Of Calhmachus, the inventor of the Corinthian column, it was said that he marred with too much nicety of finish all the stronger points of his compositions; so that he came to be known as "the diluter of art." Sophroniscus, father of Socrates, was a sculptor, as also in early life was his famous son, of whom it need only be said that when wisdom became his mistress, philosophy gained much more than was lost to art.

Scopas and Praxiteles were the chief exponents of the later Attic school, representing a period when the commonweal was no longer the chief concern of the people, when life was more selfish and complex, and when the interests of the citizen were preferred to those of the state. Thus new forms of art were required, especially such as were beautiful, and if with a sensuous beauty, this was preferred to the austere simplicity of the earlier school, how noble so ever its conceptions. The traditions of the past became more pliant, their deities more human; nor was there in the stronger realism and individuality of style which marked the transition from purely contemplative ideals, anything at variance with the true principles of art, so long as it did not tend to weakness or exaggerated sentiment. For the sublimity of the great masters the Athenians had still the utmost reverence; but they could not forever dwell on the sublime, even though it be from the hands of a Phidias.

Scopas first won repute as an architect as well as a sculptor in his native isle of Paros where still he lived when invited to rebuild and decorate the temple of Athena at Tegea—his first important commission Of his sculptures of heroes in pursuit of the Calydonian boar, executed for the front pediment, some fragments have been preserved. Removing to Athens about the year 380, he became famous for his versatility in rendering figures and features, whether human or divine, with infinite variety of sentiment, and always with the sentiment which the subject appeared to invite; for like a skilled musician, he knew how to express himself in varying keys without loss of power or sweetness of tone. Thus in his 'Aphrodite Pandemos,'—his only work in bronze—representing Venus riding on a goat, he portrayed the purely sensual phase of love, in contrast with which was the marble Aphrodite which afterward graced a Roman temple, declared by Pliny superior to the Cnidian Venus of Praxiteles. Turning from this to his Maenad, a raging bacchante, with head thrown back and streaming hair and garments, holding in her hand the sacred kid which she has slain, we may form some idea of his wonderful range of art. Still another instance was the Apollo Citharoedus which Augustus secured for his temple on the Palatine hill, the eyes upturned in the rapture of music and song, and the head thrown back in dreamy enjoyment of the strains that only the god of the lyre could command.

When more than sixty years of age, it is related that Scopas was invited by Artemisia, queen of Caria, to superintend the sculptural decoration of a monument to her husband at Halicarnassus. It is to these sculptures, unearthed in 1856, that we are chiefly indebted for illustrations of the art of the later classic school. Among other of his works are the romantic composition executed for the temple of Aphrodite at Megara, and that where, attended by sea-nymphs, Thetis, Poseidon, and Achilles are being carried by dolphins and tritons across the waters of the deep. But the masterpiece of Scopas, though by some ascribed to Praxiteles, was the group representing the slaughter of the children of Niobe, of which there is a copy in the Uffizi gallery at Florence. Though of somewhat uneven workmanship, the features and figures, the death-struggle, and the attitudes of terror and anguish are well portrayed in the reproduction. Two of the children lie dying on the ground; others are mortally wounded, and the rest are fleeing from the deadly shafts of an unseen foe like a band of stricken deer,

while above all towers the majestic form of the mother, gazing upward with fixed, despairing glance as she attempts to shield her daughter from the coming death.

Aphrodite was the favorite theme of Praxiteles, and the one with which his name is chiefly associated, though his forty or more groups and figures included a large variety of subjects. Most famous of all was the Cnidian Venus, of which the Venus de Medicis and the one in the Capitoline museum are but modified copies. The goddess is represented as rising from the bath and stretching out her left hand toward the drapery at her side; not that she is ashamed of her nudity,—for the face, with the soft smile of its parted lips, is the very personification of innocence—but as though sensitive to the cold. Nevertheless the good people of Cos, for whom it was executed, would give it no place in their temples, selecting instead a draped but inferior statue, the Cnidians securing the treasure which, erected in an open temple amid a grove of myrtle, became the delight of the Greeks, as ever since it has been the delight of the artistic world. For this figure, as for three other Venuses, one of them for a temple at Thespiae, Phryne served as a model; and here it may be said that the physical beauty of the naked female form was regarded by the Greeks as aesthetic and never as sensual; so that a portrait statue of the courtesan was placed in the Thespian shrine, while Apelles further immortalized her charms in his 'Aphrodite Anaduomene.'

Eros, as represented by Praxiteles, was not, as in other sculptures, a sprightly mischievous boy, but a youth of refinement, and with the dreamy expression of one whose love was purely ideal. To this expression, rather than to the avowal of Praxiteles that it embodied the sentiment of his own affection for Phryne may have been due her selection of Cupid as the gem of the masters shop; for the courtesan had loved too often to love over much and especially one nearly thrice her age. Even in the Apollos of Praxiteles their beauty is almost feminine, yet full of tranquil grace; so also with his 'Diadumenos,' a slender form but a perfect specimen of modeling, with expression in every line and curve. A mutilated figure of Hermes, discovered at Olympia in 1877, is one of the best specimens of the sculptor's style. The war-god is unclad and in the bloom of youth, the head of classic shape, a smile hovering on the lips, and his eyes gazing fondly on the infant Dionysos which he carries in his arms, the babe, as appears in the restoration of the figure, resting his hand on the shoulder of the great warrior. Especially noticeable are the surface finish, the play of muscles, and the natural hue of the skin, traces of color in the thickly clustering skin tending to confirm the statement of Pliny that the statuary of Praxiteles was touched by the hand of the painter Nikias. A full-grown figure of Dionysos, with ivy-wreathed thyrsus, is attended by fauns delineated in the mystic combination of human and animal forms which no other artist could produce. Says Hawthorne in his Marble Faun, whose theme was probably suggested by a copy in the Capitol at Rome: "Praxiteles has subtly diffused through his work the mute mystery which so hopelessly perplexes us whenever we attempt to gain an intellectual or sympathetic conception of the lower orders of creation."

Among the many disciples of Scopas was Leochares, whose 'Jupiter Tonans' was placed in the Capitoline temple at Rome, and of whose 'Ganymede' there is a marble copy in the Vatican. Bryaxis was best known for his golden-robed statue of Apollo 'Citharoedos,' though a more original work was his dusky and bejeweled 'Serapis' in precious woods and metals, combining Plutonic attributes with those of the Egyptian goddess of the nether regions. The 'Venus of Melos ', or Milo, discovered by a peasant in 1820 amid the ruins of a buried wall, has been attributed to one of the followers of Scopas, though an inscription, since removed, on a fragment of the plinth claimed it for one Alexandros of Antioch. In the majesty of female loveliness it far excelled all other statues of Aphrodite, commanding

but not inviting recognition, as did the lithe coquettish figures of the later Hellenic school. It is draped below the waist, the weight of the form resting in symmetrical poise on the right foot, while the matchless curve of the neck and the small but perfectly chiseled head are in the most finished style of purely classic sculpture.

The sons of Praxiteles, Cephisodotus and Timarchus won repute for their statues of the gods; but of his other disciples little is known except that they were chiefly employed on the portrait sculptures which were the strongest feature of the Macedian era. Meanwhile was established the Argive school, of which Euphranor was the founder and Lysippus of Sicyon the leading exponent, no less than 1,500 figures and groups coming from his workshop, among them the colossal statues of Zeus and Heracles at Tarentum. From his chisel also were the portrait busts of sop and the seven sages of Greece, the 'Labors of Hercules,' the 'Mars Ludovici,' the 'Cupid Bending His Bow', of which there is a copy in the Capitoline museum, and the reposeful 'Mercury' of whose Naples, in which the supple grace of youth is portrayed with a delicacy of touch worthy of Polycletus, whose "canon of proportion" he adapted to the age in which he lived. His favorite subject was Alexander the Great, a pompous but liberal patron of art, whose vanity was such that none but Lysippus might mould and none but Apelles might paint his portrait. The use of metal imparted luster to the eyes; the hair was in curls resembling the ambrosial locks of Zeus, a twist in the neck being converted, as were other defects, into studied attitudes of grace. Of the marble copies extant the best are in the Louvre, the British museum, and the Capitol at Rome, where the conqueror poses as Helios, the god of the Sun.

Notwithstanding the encomia of ancient writers, the pictorial art of the Greeks was far inferior to their sculpture. While of the former none of the great masterpieces remain from which to draw a comparison, many vases have been preserved on which was employed the best available talent of the classic era, some of them with decorative scheme as near to perfection as anything human can be. Delineations of figure, whether of man or god, are their strongest point, many of the scenes represented being of tragic interest and of surpassing grandeur.

The best of them excel in harmony of proportion, in grace and dignity of composition, and in blending and contrast of forms; yet nearly all are faulty, and some are entirely wanting in gradations of light and shade. This defect is the more remarkable when it is considered that in statuary and architecture the Greeks were thoroughly at home in their treatment of the chiaro-oscuro, and that many of their eminent sculptors were also among the foremost of painters. Phidias, for instance, was a portrait painter before he learned how to work in marble, ivory, and gold; Scopas excelled in both branches, and Polygnotus, the greatest of Hellenic masters until the days of Zeuxis and Parrhasius, one whose improvements formed a new epoch in classic art, is mentioned by Pliny as a sculptor.

In the decoration of their temples the earlier Greeks made no use of pictorial art, and in the poems of Homer it is not even mentioned, though his heroes and heroines are clad in raiment richly embellished with figure embroideries. Battle scenes and the march of armies were among the first themes of painters, one of the oldest pictures representing Darius watching from his throne the passage of the Persian host across the bridge of the Bosphorus. By Polygnotus, a contemporary of Phidias and a friend and protégé of Cimon were executed the mural paintings for the Stoa Poikile, the Theseum and other temples, his art being chiefly decorative, and for the most part representing mythological figures on a flat surface, though with many improvements in form and drapery. By him was executed, as appears from an inscribed epigram of Simonides, the series of 150 figures in the

Delphian temple of the Lesche, ordered probably by the Amphyctionic council. They were almost life-size and arranged in rows like the sculptures on a frieze, illustrating, among other subjects, the capture of Troy and the visit of Odusseus to the lower regions, as described by Homer. In one of the temples of the Acropolis, if we can believe Pausanias, were also many of his depictions; for Polygnotus was almost as much esteemed in his day as was the great master of plastic art.

Apollodorus, whose 'Ajax Oileus' was commended by Pliny nearly six centuries after its execution, was regarded as the founder of a new school of painters, introducing the effects of light and shade and the gradations of color which Zeuxis used to much greater advantage. Of the seventeen works that can certainly be ascribed to the latter, though doubtless there the most famous was his 'Helena,' for which were many others, were selected as models five of the most beautiful maidens of Croton, their charms being combined in a figure of ideal loveliness. Of the well-known story of the contest with Parrhasius, there is a variation by Pliny, who states that Zeuxis also painted a boy holding forth a bunch of grapes which the birds mistook for natural fruit; but, said the artist criticizing his own work, if the boy had been as life-like as the grapes, the birds would have kept at a distance. 'Hercules Strangling the Serpents' was one of the strongest of his compositions, as also was his 'Female Centaur with Her Young,' the intensity of its realism causing the spectators to forget the name of the painter, much to the annoyance of Zeuxis, who was one of the vainest and also one of the wealthiest of men, refusing to sell, though he would give away his pictures. But though fame may have turned his head, there is no confirmation of the story which Pliny relates,—that he appeared in public with his name woven on his robes in letters of gold. Parrhasius was also as famous for his vanity as for his art, attiring himself in purple and wearing the golden crown of a monarch; for he claimed descent from Apollo. As appears in his 'Theseus' and other works, his skill was most apparent in the clearness with which his figures stood forth from the background, his outlines serving as models for many imitators.

In Apelles, it is said, were combined all the best qualities of former and existing schools; yet much of his fame may have been due to his position as court-painter to Philip of Macedon and later to Alexander the Great. Living, as he did, in an age when creative art was a thing of the past, it remained only to invent other means for purposes of finish and effect. Hence, to produce greater harmony of light and shade, and also to render his colors more durable, he used a dark-colored glaze, which softened the sharper contrasts and subdued the more powerful tones.

Of the 'Heracleis,' which ranks among his many masterpieces, it is said that though the head was turned backward, the face was as strongly suggested as if it had formed part of the composition. Of his two pictures of Alexander, one represents him in a triumphal car, beside which War is led captive, and the others as in company with Victory and the twin Dioscuri. It was in allegorical groups and figures that Apelles chiefly excelled, the most famous being his 'Aphrodite Anaduomene,' of whom a second statue remained unfinished at the time of his death.

Of other sculptors and painters mention might here be made, as of Euthycrates, son of Lysippus; Eutychides, of whose statue of Tyche, executed for the city of Antioch, there are several copies extant; Chares, the artificer of the Colossus of Rhodes; Apollonius and Tariscus, whose marble group is reproduced in the 'Farnese Bull' in the museum of Naples. Pictorial art had also its representatives in the Sicyonian school, Euphranor the Corinthian, an historic painter, standing between it and the Attic, while Protogenes the Rhodian was acknowledged by Apelles as his superior in technique, and well he might be, for he worked several years on each of his pictures. During the later Macedonian

period barely a trace of Hellenic genius appears in the degraded and conventional forms of the Hellenistic; for with the extinction of the freedom and patriotism which had inspired that genius, the classic art of Greece was dead.

As to the antiquity of Grecian art there is sufficient evidence in Homer's description of the shield of Achilles, a beautiful specimen of chased and inlaid work, one whose elaborate design could never have been conceived unless the fine arts had reached a certain stage of development. Whether such a man as Homer lived or not, it is extremely probable that the poems which bear his name appeared for the first time, or rather were first recited, not later than the tenth century, though it may be doubted whether at the time of the Trojan war, some 300 years before, there were artists or artificers capable of producing such results.

While historians differ as to the time when the art of working in the precious metals became known to the Greeks, it is certain that they were acquainted with it during the later Pelasgian era. Homer makes frequent mention of vessels of gold and silver; the shield of Nestor was fashioned of gold, and of gold was his double-handled and beautifully ornamented drinking-cup.

The reign of Pisistratus, tyrant of Athens, was in the main beneficial; for his home, his purse, and his estate were always at the service of the poor. Many thousands he employed on public buildings and works; for his revenues were large, derived not only from taxation but from the products of Thracian and perhaps of Laurian mines. Of some of his monuments I have already spoken, and of the first Parthenon, destroyed by the Persians and replaced by the magnificent structure which Pericles reared, it is probable that he was the artificer. He was a patron of literature and art, though there is no good authority for the statement that he collected the poems of Homer in their present form, or that he was the first one to establish a public library in Athens. During his reign and that of his sons and successors, the country was intersected with roads converging on the capital, and from neighboring hills were built the rock-hewn subterraneous channels which still in part supply the capital with water.

Under the tyrant Polycrates, Samos, at first a piratical state, extended her empire over the adjacent coasts and islands, her fleets commanding the archipelago and gathering tribute from many cities. Resolving to make it an artistic and industrial center he invited hither the foremost of Grecian architects, sculptors, and artisans, introducing for the first time the art of diamond-cutting as known to the Babylonians. Among his monuments were the Astypalaea, a citadel whose massive walls, surmounted with turrets, are still in part preserved. Within was the palace where he held court, its apartments adorned with the most costly luxuries of the Orient and the finest creations of Hellenic art. A mole two furlongs in length protected the harbor, where triremes were moored to piers of rock sunk 20 fathoms in the sea, and an aqueduct brought into the city the clear, cool waters from the mountain springs of Ampelus, nearly a mile away.

Art and Architecture: The Classic Era—Italy

The city which thou seest no other deem
Than great and glorious Rome, queen of the earth
So far renowned, and with the spoils enriched
Of nations; there the capitol thou seest
Above the rest lifting his stately head
On the Tarpeian rock, her citadel
Impregnable; and there Mount Palatine.
Th' imperial palace, compass huge and high

The structure, skill of noblest architects,
With gilded battlements, conspicuous far,
Turrets and terraces, and glittering spires.
Many a fair edifice besides, more like
Houses of pods, thou may'st behold
Outside and inside both, pillars and roofs
Carved work, the hand of famed artificers
In cedar, marble, ivory, or gold.
—Paradise Regained

Concerning the story of ancient Italian art, it is but a continuation of the Hellenic; for while at first there may have been some rude forms of national sculpture and architecture, they can barely be traced beneath the dominating influence of the Greek. The oldest structural compositions with which we are acquainted are merely imitations or modifications of the Pelasgian and earlier Hellenic, while the temples, palaces, and monuments of the Augustan era are modeled after the later Hellenic, and so remained almost until the dawn of the Middle Ages, though with a further accession of foreign elements. While in the Rome of the regal period the Etruscans made themselves felt, both Latins and Etruscans were in part at least of Pelasgian stock, the latter especially owing to the Greeks all that was best in their civilization. The arts of Italy were not, as in Hellas, a natural production of the soil; they came only with conquest, as did other possessions, and not as nature s choicest gift to a people whose education and environment had made them worthy to receive it. While extending her empire from the seven hills and a narrow strip of adjacent territory, first over Italy and then over the face of the earth, Rome had no time for the cultivation of the artistic, and as little sympathy for its influences. Though among them were many great warriors and statesmen, many eminent writers and orators, they were not gifted with the artistic faculty; nor was it until they owned the world that they cared to own the art of the world, so that nothing valuable might escape them. Their own art, except for the work of Grecian artificers, was characterized by vulgarity and ostentation, with no trace of the intellectual beauty of the Greeks, and only to their insatiable appetite as collectors are we indebted for those priceless treasures of antiquity whose value is still more widely acknowledged than was the supremacy of the Caesars.

To Greek colonization, as we have seen, were due the most flourishing of early Italian settlements, and as these colonies spread and prospered, the region around and far to the north of the Tarentine gulf became known as Magna Graecia, while to the people themselves was given the name of Italiotes, the word Italia—probably from the italoi, or oxen, for which the district was famous—being applied to the entire peninsula many centuries later. Further to the north were numerous races, among whom the Latians, or Latins, gradually became predominant, though not until after many a fierce and doubtful struggle, especially with the Sabines, the Etruscans, and Volscians. At first they were but an insignificant people, encompassed on every side by more powerful neighbors, and possessing only the narrow tract that lay between the Tiber and the Pontine marshes. Even their origin is lost in obscurity, and only through philological research has been traced in their language a strong Pelasgic element.

Of all the races whom the Latians brought under subjection, the Etruscans were by far the most proficient in the fine and useful arts, their vase and mural paintings, their workmanship in gems and precious metals, their figured mirrors, and vessels in bronze and terracotta showing much skill in manipulation, if somewhat barbaric in style. During her earlier career Rome was largely an Etruscan settlement, and it is not until Etruscan monarchs ascend the throne that tradition gives place to history; for while the Tarquins themselves may belong to the legends of the monarchial era, it is certain that many public works were executed in the years ascribed to their reign. But long before the founding of the eternal city, the Etruscans were a powerful and civilized people. They had temples and theaters resembling those of the Greeks. Among their cities was Capua, famed for its wealth and luxury for centuries before Hannibal was welcomed within its gates, Veii, built on a rocky height and encompassed with massive walls, defied the Roman arms from the days of Romulus until its capture by Camillus. The Clusium of Lars Porsena was one of the richest of their towns, as also was Falerii, where the treacherous school-master was whipped back by the pupils whom he had offered to betray,

while in the temple of Pyrgi, which Dionysius plundered, were treasures valued at thousands of talents.

The Etruscans adopted, under other names, all the principal divinities of the Greeks, and to these they added not a few of their own. Hence temples were needed; but of these no traces have been preserved, no vestige remaining even of the first temple of the Capitoline Jove, which was doubtless of Etruscan design. It is probable, however, that they differed but little from the earlier Hellenic fanes, except that instead of being oblong, they were almost in the form of a square. For their civic and domestic architecture they were also indebted to the Greeks, as appears in the ruins of the theater at Fiesole, while the form of their amphitheaters, of which there is a rock-hewn specimen at Sutri, was later imitated by the Romans. In their aqueducts, bridges, and gateways, they made a liberal use both of the radiating and pointed arch, the Cloaca Maxima, one of the most perfect structures of its class, being of Etruscan workmanship. Their tombs were somewhat remarkable, the oldest taking the form of a well, lined with masonry and containing a vase in which were the ashes and charred remains of the garments and ornaments of the deceased; for cremation was the usual form of sepulture. These were superseded by tumuli, a massive wall encircling chambers often of labyrinthine shape, as in the tomb of Porsena at Clusium and the Cucumella at Vulci, the latter the largest thus far discovered. There were also sepulchers carved out of the rocks, with chambers containing richly sculptured urns and sarcophagi, mural paintings representing, not the doleful realms of Dis but scenes of festivity and rejoicing.

To Etruria came in the seventh century the artisans whom Cypselus expelled from Corinth for disloyalty, improving greatly on Corinthian methods, so that their vases and statuary were in much request. They had no marble; but in clay they were facile workmen, a colossal Jupiter in terracotta being one of the first statues erected on the Capitoline hill, while the bronze wolf of the Capitol, with its grim realistic figure, was also of Etruscan workmanship. From Etrurian cities came most of the earlier art treasures of Rome, often in the form as is said, more than two of spoils, Volsinii alone contributing, thousand bronze images. Nearly all the painted vases commonly known as Etruscan were executed by Greek artificers, and in the few exceptions there is no great difference of style. The mural paintings are also Greek, showing traces of the various schools from the time of Polygnotus to the Hellenistic era, though in the earliest stage there are features distinctively Etruscan. Finally it may be said that while there was much to commend in their art, it was painfully disfigured with the in the monstrous and grotesque, as appears, for instance, Chimaera at Florence, a goat with dragon's tail springing forth from its back. Size takes the place of symmetry; a lavish use of material is preferred to harmony of proportion, and with the best of models and workmen at their command, they could not imitate without exaggerating. The chaste and beautiful becomes coarse in their hands; the sublime and terrible degenerates into the repulsive, and the sensuous into the obscene.

In the mythic era of Rome, which includes most and probably all of the regal period, there is little that need detain us, except as to the city which they built. Offspring of Mars and eponym founder of Rome,—a Greek word signifying force and especially brute force—Romulus, with his shepherd followers, after subduing the bandit tribes of Latium, builds with the spoils of the despoilers the walls of his city, and presently ascending to heaven, sends word that his people are destined to rule the world. Then comes Numa, that is to say nomos or law, pointing to an age when violence and lawlessness give place to a settled order of affairs. Tullus Hostilius organizes the Albans, whose capitol he destroys, as the basis of the Roman plebs, their numbers being largely increased by his successor,

Ancus Martius, who gathers much booty from captured towns. The elder Tarquin, an Etruscan of means and influence, gives to the shepherd settlement the most costly of its earlier monuments and to these additions are made in the reign of Servius Tullius, together with many social and political reforms. Tarquin the Proud is the last of the seven kings, whose traditions extend over nearly two centuries and a half and as the city was at the time of his expulsion, so with further enlargements, but with little attempt at architectural decoration, it remained until late in the republican era.

It was but a poor looking city, this Rome of the regal era, and even after its sack and destruction by Brennus, early in the fourth century, the capital was rebuilt with narrow and tortuous streets, unpaved and crossed with open drains. There was little comfort in the dwellings which lined these unsightly thoroughfares, and there were none of the attractions of home. Built at first of wood and roofed with straw or shingles, the principal and often the only apartment, where meals were served and where women passed the day in spinning, was lighted by a hole in the ceiling, another hole in the ground serving to carry off the rain water. Sometimes sleeping and storerooms were built around this chamber; but there were no stairs, for none of the buildings were of more than a single story. Later, houses were constructed of sun-dried bricks or tufa—a soft, friable, conglomerate rock of volcanic ashes and sand, of which there are large deposits among the hills of Rome. At the opening of the second century all the better class of dwellings had separate bedrooms, a kitchen, and usually colonnaded gardens and courts in which was a chapel for the household gods. In the time of Cato the Censor was erected next to the senate-house a silversmiths hall with columnar treatment similar edifices, replacing the private shops or booths which lined the Forum Romanum. Before the close of this century Rome had entirely laid aside her village-like aspect, Pyrrhic and Tarentinc spoils providing funds for pretentious public buildings and for the employment of artists actors, and musicians, while silver plate, before almost unknown, was common on Roman tables. Thus began the age of luxury, presently increased by the spoils of Greece, Macedonia, and other lands, filling the treasury to overflowing, and giving to the citizens of the later republic an enormous aggregate of wealth.

First among the great works ascribed to the monarchy, of which many traces have been preserved, was the so-called Servian wall, though belonging in part to earlier and later periods. Enclosing the seven hills, but not in continuous circuit, for each one had its own fortifications, it did not include the Campus Martius, then probably a marsh but later the site of imposing edifices and now the most densely populated quarter of the capital. Tufa and peperino—the latter more durable than tufa but of similar composition—were chiefly used, except for the arched openings, which were of tougher materials, the blocks being carefully shaped and set in mortar. The backs of houses still in existence are composed of portions of this wall, some of them overlaid with stucco work more than fifteen centuries old. An agger in front was converted in the reign of Augustus into a public walk, and a foss 100 feet wide was filled in for building purposes. Of the great wall of Aurelian, completed by Probus and strengthened or restored by later emperors there are many remains, including those of the Praetorian camp, whose ramparts were in the form of a projection.

As road-builders the Romans had no equals among ancient nations, great highways connecting the metropolis with every portion of her worldwide empire. For the best of them, named viae stratae, were used blocks of basalt, carefully jointed and laid on beds similar to those used for modern pavements, as in the Via Appia, connecting Rome with Brundusium and termed by Horace the queen of thoroughfares. Of the fourteen great aqueducts which supplied the capital with water from adjacent

hills, the first was constructed by Appius Claudius, and the largest, begun by Caligula, was completed as its name implies, by the emperor Claudius at an expense of 350,000,000 sesterces, or the equivalent of $17,500,000, thus affording some idea of the wealth of imperial Rome. In all the ruins of the Campagna are none more imposing than those of the triumphal arches on winch the aqueducts were built; for architects understood not the science of hydrostatics, expending vast sums on the massive structural forms which were common to the age. The earliest of bridges were built on subliciae, or piles whence the name Pons Sublicius, a drawbridge merely, as were several others; for it was not until after the destruction of Carthage, in the middle of the second century, that the Romans deemed themselves safe enough to dispense with the protection which the Tiber afforded.

The massive Pons Fabricius, of tufa and peperino, faced with travertine, built in the time of Julius Caesar, is still in use, as also is the Pons Cestius, which belongs to the same period, though with later restorations, as appears on its marble parapet. The Ponte Saint Angelo is but the modern name of the Pons Aelius, which connected the Campus Martius with the mausoleum of Hadrian, a circular edifice of cyclopean proportions, lined with Parian marble and encircled by a colonnade containing rows of statuary. On the site of this mausoleum now stands the castle of Saint Angelo, its interior chambers but slightly defaced during the wars of the Middle Ages, though the exterior has been wrecked and repaired beyond recognition.

Between the sepulchral monument of Hadrian and the basilica of St. Peter stood, until the fifteenth century, the pyramid-tomb of Romulus, a form not uncommon in the regal and consular periods, and of which at least one specimen belongs to the time of Augustus. In the later republican era imposing structures were built for the resting places of the dead, as the tombs of Scipios and of Caecilia Metella, the latter in the form of a circular tower 100 feet in diameter, but such massive blocks of masonry that the burial chamber was less than 20 feet in width. The splendid mausoleum of Augustus, whose interior was recently converted into a circus, was surrounded, as Suetonius relates, with public gardens laid out during the lifetime of the emperor. From a circular base, nearly 1,000 feet in circumference, rose a cylindrical edifice of concrete lined with marble, interior galleries radiating from the center, above which was a mound of Etruscan form, shaded with trees and planted with flowerbeds.

The boast of Augustus that he found Rome a city of brick and left it one of marble was true only as to the marble, and so far as public buildings were concerned; for few Roman mansions were of marble and none were of brick, the use of the latter being mainly for the facings of walls and arches. Yet Rome was largely rebuilt during the reign of Augustus, and even in its site were many important changes. The marshy hollows where were the Campus Martius and the Forum Romanum had been drained by the huge cloacae which were among the most important of earlier works. No longer was the capital a cluster of villages crowning the seven hills, each protected by its fort and by precipitous cliffs. To make room for the imperial city hills and ridges were partially leveled or cut away; the gigantic engineering works begun in the consular period were continued by the emperors and throughout the Middle Ages, while still in progress is a plan for reducing the city to an almost uniform level, intersected as in Paris with spacious boulevards and plazas.

The Capitoline hill was the Acropolis of imperial Rome, its peaks, named the Capitolium and Arx, with the valley between, being crowded with architectural monuments and with the art spoils of Hellenic cities. Of many temples and shrines the oldest was the sanctuary of the Capitoline Jove, built by the

Tarquins and consecrated in 509, not only to Jupiter but to Juno and Minerva, worshipped under other names as the Etruscan trinity. It was a huge triple structure, plain almost to unsightliness, with stuccoed walls, wide and clumsy porticos, wooden architraves, and painted statues of terracotta. Destroyed by fire after serving for more than four centuries as the national fane of the Romans it was reconstructed of marble by Sulla, Catulus, and Augustus, pillars from the Athenian temple of Olympian Zeus being used for its colonnade. Twice again demolished, it was finally rebuilt by Domitian on a magnificent scale, its gilding and double peristyle of Pentelic marble costing $13,000,000. For centuries it was regarded as one of the grandest of Roman monuments, and though the merest fragments remain, its general outlines have been preserved on coins. Among other temples were those of Fides, built during the first Punic war on the site of a small chapel ascribed to Numa, and of Honos et Virtus, reared by Marius, both large enough for sessions of the senate. A larger edifice was that which Camillus erected on the site where now stands the church of the Ara Coeli. Dedicated to Juno Moneta, or Juno the Adviser, it was later used as a mint, whence probably it was that the word moneta came to signify money.

Built against one of the steepest slopes of the Capitoline mount was an ancient temple of Saturn, the founding of which was attributed to Tarquin the Proud, though on its site was a still more ancient altar.

Here was the public treasury and here were preserved the archives of the state, a statue of the god being secured with woolen bands, notwithstanding which he vanished from earth. Of its reconstruction in the time of Augustus and again in the reign of Diocletian, the only remains are its massive and lofty podium, portions of its marble facing, and a few granite columns, one of them wrong end up showing the careless workmanship of its later restoration.

In other parts of Rome temples were plentiful, though many were extremely simple in design, especially those of the regal period, the temple of Janus, for instance, being merely a small bronze cella in rear of its open gateway, closed only during the brief intervals when Rome was at peace. The original fane of Vesta, though the most hallowed of all Roman sanctuaries, containing the sacred fire and the sacred relics whose loss would bring calamity on the nation, was but a small circular edifice entirely void of pretension. Demolished by the Gauls in 390 and afterward thrice destroyed by fire, it was rebuilt by Severus, with peristyle of eighteen columns and dome of Syracusan bronze the ruins of its circular podium, surrounded with fragments of pillars and cornice, together with coins and medals and a relief in the Uffizi gallery affording sufficient data for a fairly accurate reproduction. As with the temple, the Atrium Vestae, where was the home of the Vestal virgins was several times burned and restored, the last restoration belonging to the time of Hadrian. It was in the form of a quadrangle, having at one end cells for each of the virgins, and on the adjoining side a bathhouse and bakehouse, with servants' and other chambers. In an upper story were more handsome apartments, including the bedrooms of the vestals, lined with polished marble and floored in tessellated mosaic, the statuary showing the sacerdotal robes as worn at the time of sacrifice.

In the octostyle temple of Jupiter Stator, belonging to the Augustan era and renamed as a temple of Minerva,—perhaps to distinguish it from the primitive fane which Romulus built—Roman architecture appears at its best, so far at least as columnar treatment is concerned. In the tall Corinthian pillars, surmounted by an entablature more than twelve feet in height, is a symmetry of proportion and richness of decorative scheme which was never surpassed, except perhaps in the

Pantheon. The fluting is of most finished workmanship, and though the capitals are somewhat over elaborated, especially as to the acanthus leaves, which are nearer to nature than is permissible in structural forms, the effect is far from displeasing. The carvings of the architraves and cornice are also extremely complex, expressing in sculpture what the Greeks would only have painted. While the Corinthian order has been termed the keynote of Roman architecture, the Doric and Ionic were also used, all the three sometimes appearing in conjunction in the tall and many-storied buildings of imperial Rome.

In honor of the victory of Aulus Postumus at Lake Regillus was dedicated by his son the sorry-looking temple of Castor, replaced in the Augustan era with an edifice in the purest style of Hellenic art, but with Roman solidity of construction. In the basement were strong-rooms for the safe-keeping of family treasures; for as with the Greeks, temples were the safest and indeed the only banks. The podium, lined with marble and filled with a solid mass of concrete, rose in the form of a lofty platform from which orations were delivered, for here the senate often held its sessions. Massive tufa walls supported the cella and columns, the three Corinthian pillars of Pentelic marble, which have been partially preserved, together with a portion of the entablature, showing the most finished and delicate workmanship.

Lined and paved throughout with the richest of oriental marbles was the temple of Concord which Tiberius and Drusus built with the spoils of German cities on the site of the rude structure erected by Camillus. The lower courses of the walls were of tufa blocks, the upper portions of travertine, and the inner supporting wall of tufa, travertine, and concrete, the door-sill, with its bronze caduceus as an emblem of peace, being fashioned of enormous slabs of marble; such variety of materials had the Romans at their command. The portico and cella were profusely adorned with statuary; the tympanum was handsomely sculptured, and in the Capitol are still preserved many portions of the Corinthian entablature. Here was a valuable collection of the art works of ancient Greece, both plastic and pictorial, with costly gold and silver plate and gems engraved by the most skilful of Roman artificers. To this age also belonged the temple of Divus Julius which Augustus erected on the Sacra Via, a hexastyle structure with close intercolumniation and lofty podium adorned with the beaks of vessels captured at Actium. Close to the temple of Concord was that which Domitian built in honor of his father Vespasian, and on whose entablature were recorded the restorations by Severus and Caracalla. Its travertine walls, though sufficiently massive, were secured with iron clamps and lined with Pentelic and oriental marbles, three of its Corinthian columns still supporting a richly sculptured frieze.

On a spur of the Palatine mount known as the Velia, near which may be traced the foundations of the Golden House of Nero, stood one of the largest of imperial temples,—that of Venus and Rome. Built on a platform 480 by 330 feet, it was surrounded with a double Corinthian colonnade of Pentelic marble, granite, and porphyry. Of the 200 pillars which formed the outer peristyle there are a few remaining fragments, as also of the two cellae in which were colossal statues of the goddess. Designed and in part constructed by Hadrian, completed by Antoninus Pius, and restored by Maxentius and Constantine, its ruins were converted into a quarry, the gilt bronze tiles of its roof serving for the basilica of St Peter's.

The most stately of Roman temples, and the only one that compared in magnificence with the civic architecture of the capital, was the Pantheon, built by Agrippa, its interior, though defaced by

alterations, presenting the same general aspect as when restored by Hadrian and Severus. Intended originally as a portion of the great thermae, or public baths designed by the former emperor, it was later consecrated to the gods from whom the Caesars claimed descent, and early in the seventh century was consecrated as the church of Santa Maria ad Martyres. The central portion is of circular form, with brick-lined tufa walls 20 feet in thickness, a lofty podium supporting a dome 143 feet in diameter, constructed of one solid mass of concrete, and formerly covered with Syracusan bronze. The portico of sixteen monolith granite columns, with marble Corinthian capitals and pediment sculptured in relief, representing the struggle between gods and giants, was supported by the tubular girders of bronze, 225 tons in weight, which Urban VIII melted down for the cannon of Fort Saint Angelo. The interior, though handsomely decorated with pillars of colored marble and porphyry, is somewhat marred through lack of height in proportion to the overpowering dome, while the combination of circular and rectangular forms detracts from the grandeur and simplicity of the external proportion.

Of Roman basilicas, used originally as courts of law, several were erected, before the Christian era, the oldest being founded by Marcus Porcius Cato and hence called the Basilica Portia. At first they consisted merely of an unwalled space surrounded with covered porticos built on some sheltered and sunny spot in the neighborhood of the forum. Those of later construction, were in the form of spacious and lofty rectangular halls with rows of Corinthian columns terminating at one end in a vestibule and at the other in an elevated transept or semicircular apse, where were the seats of the judges and the praetors' curule chair, galleries with sculptured parapet walls being provided for spectators of either sex. The Basilica Ulpia, or Trajan's basilica, was the largest, and especially as to its interior decorations, the most magnificent of its class about 400 feet in length and nearly as much in width, it consisted of a nave 87 feet wide, divided by tall granite columns from its double aisles, upper rows of pillars resting on the gallery walls and supporting a ceiling 120 feet high, covered with squares of gilded bronze.

The walls were cased with white marble, and in the court which contained the Trajan monument were the libraries which Sidonius names the Bibliothecae Graeca et Latina. The temple of Peace, as was commonly termed the basilica of Maxentius, named also after Constantine in whose reign it was probably completed, showed remarkable progress in structural forms during the intervening period. There were no columns except in front of the piers, and these used only as ornaments, the central nave being roofed with a huge intersecting vault in three bays, and the aisles with arches each more than 70 feet in span. Here is in fact a transition to the Gothic style, though the vaulting was much more ponderous than that of Gothic artificers, who with a more economic use of materials, produced results as striking in effect and much more beautiful in outline.

Still fronting on the forum and the Sacra Via is the Basilica Julia, founded by Julius Caesar, completed by Augustus, restored by Septimius Severus and Diocletian, after being twice destroyed by fire, and with a later restoration belonging to the ninth century. There were four tribunals, several of the emperors establishing here their principal law-courts, while among other purposes it appears to have been used for a gambling resort, as is shown by the tabulae historiae outlined on the marbled pavement. As it stood in the days of Augustus three of its sides were in the form of a double portico, and on the fourth were apartments surrounded by an arcade of the Tuscan order, with a central open space paved with richly colored marbles.

Temples, as we have seen, were used for the meeting places of the senate, though as early as the reign of Servius Tullius a curia was built for their accommodation. After being several times destroyed, it was finally rebuilt by Diocletian, probably on the site now occupied by the church of Saint Adriano, its bronze doors being utilized for the nave of the Lateran basilica, while in the structure itself, with its plain brick cornice and marble consoles, there was nothing worthy of note. Between the curia and the forum was an open space named the comitium, where met the comitia curiata, and where from rostral platforms adorned with the beaks of captured vessels Cicero and other orators delivered their orations.

Covering the marshy ground between the Capitoline and Palatine hills was the principal forum, afterward distinguished as the Forum Romanum or Magnum from the structures which the emperors built. A central space, surrounded on three sides by roads lined at first with wooden booths and later by the quarters of money changers and silversmiths, was used, after the marsh had been drained by cloacae for the meetings of the plebs, or comitia tributa, for a commercial exchange, and for funeral pageants attended not infrequently with scenic and gladiatorial shows. At one end stood the altars of Saturn and Vulcan, and at the other a temple of Vesta, to which were later added the statues and other monuments of kings and heroes, of wealthy men and women who had given of their substance for public enterprises. Thus when Rome developed into a great city, little of the open area was left.

The Forum Julium with its temple of Venus Genitrix, founded in commemoration of the battle of Pharsalia and completed by Augustus, was built in one of the most crowded quarters of the capital, its site alone costing 100,000,000 sesterces. Adjoining it a massive wall nearly 100 feet in height enclosed the forum of Augustus and the octostyle temple of Mars Ultor, which betokened the vengeance inflicted on the assassins of Julius. Of the wall a large section still exists, together with several of the richly decorated Corinthian columns and portions of the marble ceiling of the peristyle. In Vespasian's forum, restored by Severus and with additions by Maxentius, the principal building was the temple of Peace, containing what was in the first century one of the largest art collections in the world, including statues by Phidias and Lysippus. Lined with marble, adorned with Corinthian colonnades surmounted with a richly sculptured entablature, and later decorated with colossal statues of deified emperors, was the adjacent forum of Nerva, or as it was commonly termed the Forum Palladium, from its included temple of Pallas.

But largest and most magnificent of all was the forum of Trajan with its adjacent group of buildings, the main entrance being through a triumphal arch whose handsome reliefs were presently transferred to the arch of Constantine. On the shaft of Trajan s column, beneath which the ashes of the emperor were buried in a golden urn, are represented in 2,500 figures the scenes of his many victories, and beyond it was his temple, the design of which, though completed by Hadrian, is still preserved on the coins of his reign.

Columns and pillars of Victory were common in Rome and throughout the Roman world, most of them serving merely as frameworks for sculpture, but in forms that were always borrowed and seldom in good taste. At first they were erected without surmounting statues and even without capitals, but usually surrounded with open porticos, rendering less noticeable the absurdity of a pillar supporting nothing and built for no apparent purpose. The granite monolith which the adopted sons of Antoninus Pius reared in his memory, and whose marble pedestal is preserved in the Vatican, was surmounted, as was the column of Marcus Aurelius, with a colossal statue in gilded bronze, both

pillars being a hundred Roman feet in height and the latter resembling the Trajan monument, especially in the spiral reliefs which illustrated the emperors victories in Germany.

Triumphal arches, the earliest of which were probably of Etruscan design, were at first in the form of entranceways to public roads—one of the greatest boons that a ruler could bestow on his country. In Rome their later use was for the commemoration of victories, though built at times for the passage of triumphal processions. Of forty or more in existence during the later empire, the arch of Titus and Vespasian, which Domitian erected on the Sacra Via—though all but the center is a modern restoration—is most remarkable for historic interest and for simplicity of design, an over-massive attic, designed as it would seem merely for its lengthy inscription, detracting from what would be otherwise a classic beauty of outline. Unlike the rest, it is not covered with sculptures representing the deeds which they perpetuate, the central portion only showing on one side Titus and his chariot, on the other Roman soldiers bearing the sacred prothesis, the golden candlesticks, and all the rich spoils of the temple at Jerusalem.

Forming one of the entrances of the Forum Boarium, and now adjoining the church of Saint Giorgio in Velabro is the profusely decorated marble gateway erected, as reads its inscription, by merchants and silversmiths in honor of Septimius Severus. But the finest of existing arches is that which Constantine built in the neighborhood of the Coliseum the best of its sculptures were borrowed, as I have said, from the Trajan monument, none of its beauties and not even its design being due to this period of art decadence and degradation.

For a people, all of whom must be amused and most of them fed at the public expense, many theaters ere required in imperial Rome, her population mustering in the time of Augustus at least a million and a quarter and at a later period more than twice that number. Enormous were the sums expended in feeding and entertaining this populace, composed almost entirely of alms-folk, mendicants, and millionaires; for the poor were subject to the extremes of poverty and as yet there was no middle class. Moreover, the road to office lay through the stomachs of the proletariat, and hence, when the wealth of the world was concentrated in its metropolis, there were daily distributions of grain and frequent distributions of money, wine, and oil. First bathing at one of the thermae, or public baths, where a small copper coin would also entitle him to the use of their art-galleries, libraries, and gymnasia, the Roman pauper could pass his remaining hours without payment of any kind, in the Circus Maximus, which was to him as an abode, an adjacent portico serving as couch and also as dining room in which to banquet on his dole of food. Regardless of summer heat or winter rain, he would gaze the livelong day on the charioteers and horses whose success or failure, though without a sesterce in his pocket to bet on the issue of the race, was to him of greater importance than the fate of armies or the destinies of empire. To the Greek his theater was more than his temple; to the Roman it was more than either temple or home.

The original Circus Maximus, a rude structure assigned by tradition to Tarquin the Proud, had been converted in the days of Constantine,—though with many intermediate improvements and more than one partial destruction by fire—into a massive and imposing edifice, with marble facade, external series of arches, and rows of marble seats resting in tiers on concrete vaults. A quarter of a million, it is said, was the seating capacity, the lower tiers being reserved for the rich and for citizens and visitors of rank, with the cubiculum, or emperors' box, in the center of the range. At either end were goals around which the chariots passed seven times, starting in an oblique line which equalized the length

of an elliptical course. Between them was a low wall, or spina, decorated with images, shrines, and obelisks, among them the pillar which Augustus presented, now standing in the piazza del Popolo. To obstruct the path of competitors and to avoid the goals, while rounding them as closely as possible, was one of the strongest tests of skill,—the jockeying in fact of the Circus Maximus. The charioteers or riders, the latter leaping from back to back of their horses, were distinguished by various colors, white and red, green and blue, gold and purple. Most of them were slaves, belonging, together with their horses and equipage, to some wealthy owner who could afford what was even a more expensive amusement than the pastimes of the modern turf. While descriptions are plentiful, except for the circus erected by Maxentius near the tomb of Caeilia Metella, there are few ruins of any of the Roman circi from which their plan can be judged.

Stone theaters were not permitted in republican Rome, one partially erected about the middle of the second century being demolished by order of the senate, while that which Pompey erected, with its portico of a hundred columns, was only tolerated on account of its temple of Venus Victrix. The foundations of the latter, as restored by Titus after being twice destroyed by fire, can be distinctly traced; but of the curia which adjoined it,—the site of Caesar's assassination—no vestige remains, for the senate decreed that it be burned to the ground and its site declared forever accursed.

The colossal statue at the foot of which "great Caesar fell" is now in the Palazza Spada, and in the Vatican is a gilt bronze image of Hercules, also of gigantic size, a third century work unearthed near the theater some thirty years ago. Of the theater of Marcellus, reared and named by Augustus in honor of his nephew, and restored by Vespasian, the remnants of the arcade show that it was of the Tuscan and Ionic orders, with details in delicate workmanship. As Pliny relates, the finest temple of the drama, and yet a temporary structure, was that which Marcus Scaurus built,—its three stories—the first of marble, the second of glass, and the third of gilded wood—upheld by 360 columns, between which were 3,000 brazen statues. But most remarkable of all is that which Pliny describes as in two contiguous sections, the convex portions back to back but revolving on pivots, so that when filled with spectators and turned around, they enclosed an arena for gladiatorial display.

Of several amphitheaters, the most imposing structure was the Coliseum, whose ruins, after serving for centuries as a quarry, are still among the wonders of the world. Built by Vespasian and Titus, though with restorations by Alexander Severus after its partial destruction by lightning, it was probably named after the colossus or colossal statue, which stood in front of Nero's Golden House, and thence was removed to the edifice, whose grandeur poets and painters are never weary of depicting. Yet, as a structural composition, it was remarkable only for size and incongruity of plan. In the interior there was little attempt at decoration, and in the exterior design there was not a single detail that will stand the test of criticism. Especially faulty was the columniation, most of the pillars being useless, while the squat pilasters of the upper story were among the most painful blemishes of this huge architectural threat.

As the Coliseum has been a thousand times described it is unnecessary here to enter into details, and the more so as, apart from its magnitude and its somewhat unsavory associations, there is little worthy of description. At Capua was a building in three stories, resembling in design and second only in size to the great metropolitan amphitheater; at Pompeii, Fidenae, and elsewhere were similar places of amusement, and not only in Italy but in the provinces, arenas where human beings slaughtered each other, or were torn to pieces by wild beasts, were the favorite resorts for those who

sought recreation throughout the Roman world. No wonder that, among such a people, art could find no home.

Next to the circi, the theaters, and amphitheaters, the thermae were the largest and probably the most costly of public buildings, many of the emperors and even private citizens, among them Maecenas, the patron of Horace, erecting and maintaining public baths at their own expense. Of their architectural features few traces have been preserved, except for the great thermal establishments of Diocletian and Caracalla. The main hall of the former, with its 3,000 marble seats, has been converted into a church; and the latter nearly a mile in circuit, was in the form of a square with curvilinear projections, a portico, 1,150 feet in length, facing the street, and the principal edifice standing amid a spacious and beautiful garden. The larger thermae were on a magnificent scale, the baths of various descriptions and the chambers where bathers stripped and dressed and were anointed forming but an insignificant portion of the design. There were also gymnasia and libraries; in some there were theaters, and in not a few were galleries of art, the choicest of statuary being found amid their corridors and colonnades, while in the baths of Titus were fresco paintings which are still regarded as among the most valuable specimens of the decorative art of the middle empire.

Of Roman palaces and mansions it may first of all be said that, in common with their monuments, they were characterized by splendor, costliness, and execrable taste. Never before in the history of the world had the world's wealth been at the disposal of a single man, as in the reign of the Caesars; nor was there, even among Assyrian or Persian monarchs, more disposition to squander it for the gratification of personal vanity.

To adorn their homes and temples they could select from the spoils of all the cities of the earth, and at their command were the most skilful artists and artificers of Hellas and of scores of subject provinces. Hence we find in the palaces of the emperors a grandeur and magnificence such as never was witnessed in medieval or modern Europe, yet too often marred with the coarse vulgarity inseparable from “great and glorious Rome."

Greatest among architectural ornaments was the palace of Augustus on the Palatine mount, with its adjacent octostyle temple and libraries of Apollo, stored with the choicest of Hellenic statuary in marble and bronze, in ivory, silver, and gold. Of the palace itself, which stood on the verge of the cliff, nothing remains above ground, though a fairly accurate description has been gathered from excavations and the drawings which show their results. Of the various chambers the best preserved are those contained in "the house of Livia,” where dwelt the wife of Augustus after her husband’s death, its mural paintings and other decorations executed in the most finished art of the Augustan era. Facing the Coliseum is an enormous mass of masonry from which all that was of value has been removed, the blocks showing the massiveness and solidity common to the structural forms of Rome.

The entrance to the temple was through propylaea more imposing, if less artistic than those which led to the Acropolis, and through a portico of fluted columns of Numidian and other marbles richly embellished with statuary. Surrounding an altar in front were the bronze oxen which Myron fashioned, and over the doorway were mythological sculptures in ivory reliefs. In the cella, as Propertius relates, were the Apollo of Scopas and the Latona of Praxiteles; around the walls were the figures of the muses which Juvenal mentions; on the apex of the pediment was an image of Phoebus in a chariot of gilded bronze, and there were vessels, vases, and images of gold and silver, with precious gems engraved in cunning workmanship. Forming one side of a large enclosure was a

spacious hall where at times the senate held session, a colossal statue of Augustus reaching almost to the roof, and on other sides were the Greek and Latin libraries which together formed a collection of classic literature superior even to that which the Ptolemies gathered at Alexandria.

Covering the southeastern corner of the Palatine hill, and extended thence on arches of uniform height with its summit far into the valley beyond, was the palace of Septimius Severus, a structure of enormous proportions. Adjoining it were handsomely decorated bathrooms lined with marble, and at the foot of the hill the magnificent seven story building which the emperor dedicated to the sun and moon, its marble columns being afterward transferred to the basilica of St. Peter. Also on an arched substructure of cyclopean dimensions was built in part the mansion of Caligula, probably the most costly and by far the most unsightly of Roman palaces. To make room for its site were destroyed the former dwellings of many famous men, among them those of Crassus and Catiline; for on the mount was the fashionable quarter of Rome. Between the arches were vaulted chambers probably used as shops; but the upper rooms were rich in mosaic, columnar, and other ornamentation, of which only the merest traces have been preserved.

Of Hadrian's palace, if such it can be termed,—for it consisted merely of suites of rooms adjoining his stadium—one of the apartments, its vaults deeply coffered and tastefully embellished, is among the most suggestive ruins of the Palatine. Hadrian was a lover and patron of art, well versed in the principles of architecture, and superintending in person the erection of the monuments with which he adorned the imperial and provincial cities. In the Vatican are many of the statues and sculptures in marble and bronze collected during a progress through the provinces for his costly villa near Tivoli. Of Greek statuary there was a most valuable collection in the Flavian palace, whose walls and floors were of richly tinted oriental marbles; in the throne-room were the choicest specimens, not a few of which are still to be seen in the museums of Naples.

Excavations of a comparatively recent date, especially in the neighborhood of the Villa Farnesina, show the remains of dwellings richly decorated with mural paintings and reliefs. Near the Quirinal mount was discovered the house of Sallust, a structure in several stories, and in its center a dome-covered hall, around which were stairways and many handsome apartments. During the consular period, or at least until near its close, there were few pretentious buildings, the first private edifice decorated with marble columns being that of the orator Lucius Crassus, who in 95 BC was elected consul, probably more on account of his wealth than his eloquence. Later, colored marbles were freely used for floors and panellings, especially the yellow Numidian and Luna or Carara varieties. Yet even under the earlier empire the residences of the rich were mostly void o exterior decorations, with windowless chambers of moderate size, lighted from the ceiling and embellished with paintings and arabesques.

By the Roman millionaire his country villa, and not his city residence, was regarded as home, the former being merely a place in which to sojourn for a few months in the year and to entertain his friends at costly banquets. At Baiae and Terracina, at Tibur and Tusculum, at Naples, Pompeii, and elsewhere were the country houses of the patrician class, some of them with their gardens, parks, and artificial lakes, occupying more space than many a provincial town. There were nurseries, aviaries, and fish-ponds stocked with the choicest of plants, with birds of brilliant plumage, and with the fish of the river and the sea, while game preserves were filled with animals of the chase. A profusion of statuary was considered indispensable to the porticos and grounds of a country mansion, and the

furniture was of most expensive pattern, a dining-table costing 100,000 sesterces, the guests reclining at banquets on couches mounted in silver and partaking from silver plates of all the dainties and delicacies that land and water could furnish.

Nowhere perhaps in the ancient or modern world were there such extensive art collections as in the Rome of the earlier and middle empire. For centuries the principal cities of Greece and Magna Graecia, of Sicily and Asia Minor were ransacked for pictures and statues, the spoils including the masterpieces of all the leading artists from the days of Phidias downward, pedestals now in existence showing the names of Praxiteles, Polycletus and Timarchus. The statues were of various descriptions and materials, the lists given by Pliny and others showing many of gold and ivory and many thousands of silver, while innumerable were those of marble and bronze, the paintings including all eras, schools, and branches of art, from the gems of Apelles and Zeuxis to such as were used for mural decorations.

Then there were the productions of Greek artists living in Rome, to which class belong some of the choicest sculptures contained in the Vatican and other museums. Finally there was the statuary of the regal and republican periods, though this was of archaic rather than artistic value.

As remarked in substance by an authority on Roman sculpture, the embryo love of art awakened into new life the slumbering plastic art of the Greeks, giving them tasks to achieve and incentives to execute them in finished workmanship. But this taste arose merely from love of ostentation, or at best from a desire to add to the enjoyments and refinements of life; hence the direction taken corresponded with these outward circumstances. In the imaginative sphere of Hellenic sculpture and painting essentially new ideas and new creations were not to be expected; but it was possible to reproduce the earlier works of the classic era and to take up again the sundered threads. Thus there arose in Rome, or working for Rome, a new Attic school of sculptors, and many of their compositions reached such a degree of excellence as cannot readily be surpassed, combining delicacy of conception with harmony of movement and outline, gentle transition of form, and perfection of technique.

Even in the regal period Hellenic art was not unknown in Rome, Servius Tullius securing a Greek statue for his temple of Diana on the Aventine mount, soon to be followed by other divinities in marble and bronze. In the Capitol, in the forum, and elsewhere were colossal images of kings and heroes, but these were not works of art; nor was it until Marcellus, returning with the spoils of Sicily, introduced the fashion of carrying statues in procession, that real art first became known. To transport the art spoils which Paulus Æmilius secured in Macedonia hundreds of wagons were required, while those of Corinth, as we have seen, were sufficient for the loading of several ships. Sulla and Pompey added largely to the accumulation, the latter being the first one to employ a Roman sculptor, one Componios by name, who executed allegorical figures of conquered nations and not improbably the colossal statue at the foot of which Caesar met his fate.

To Apollonios, a Greek artist contemporary with Componios, is attributed a chryselephantine statue of Jupiter which has long since disappeared, together with the temple for which it was fashioned. The name of the former also appears on the pedestal of the famous Belvedere torso of Hercules in the Vatican, pronounced by Michael Angelo the finest specimen of Roman sculpture. The figure is seated on a rock and shows, even in its mutilated form, a rare combination of strength and grace, the massive, muscular frame contrasting with a skin smooth and soft as that of a child. Here is not the Hercules of the seven labors, but a hero exalted above all earthly environment, admitted into

Olympus, and receiving perhaps the cup of nectar from the fair hand of Hebe. To the same era belongs Pasiteles, a Graeco-Italian artist and art historian, none of whose works have survived, though in the Vatican, the Villa Albani, and the Villa Ludovisi are compositions by his pupils Stephanos and Menelaus. If at this period there was little of originality, there were excellent copies of the great masters, sculptors of superior taste and skill, stimulated and encouraged by Roman appreciation and Roman gold, reflecting "the afterglow of the classic sunset."

In art, as in architecture, the reign of Augustus was the culminating era, sculptors flocking to the imperial city from all the provinces where art had made its home, while that which money could not purchase was appropriated as spoils. From the summit of the temple which Augustus reared within his palace enclosure archaic marbles from Chios looked down on recent works as on a mush room growth, Roman patricians ordering many of the copies of Phidian and other subjects which have been preserved in the Louvre and Dresden galleries. In the portico of Octavia, intended as a public walk, sheltered from wind and weather and richly adorned with statuary and paintings, was the Venus de Medici of Cleomenes, once regarded as the most perfect expression of feminine beauty. Though now but little esteemed, it is certainly an attractive figure, slender and small, the head slightly turned aside, the features perfect in shape but inane in expression, and the undraped form, graceful and delicate, shrinking in an attitude of coy, affected timidity.

While modeled doubtless after the Aphrodite of Praxiteles, it may be observed that, as with the Capitoline, the Chigi, and other Venuses there is no trace of the divine, merely a lovely woman transformed from a Grecian goddess into a coquette.

To Diogenes, a skilful artificer in bronze, was entrusted the sculptural ornamentation of the Pantheon,—its bas-reliefs, its caryatids, its horsemen at the corners, and its surmounting quadriga of Jupiter Tonans. At the sides of the bronze gates were colossal images of Augustus and Agrippa, and in the center and recesses of the temple were those of Jove the Avenger, of Mars and Romulus, of Juno, Venus, and Minerva. Of the many statues and busts of Augustus contained in European museums, one of the most remarkable was disinterred at Ostia early in the present century, and is now in the Vatican collection. It represents the emperor in early manhood, with thoughtful intelligent features in which is a tinge of sadness and melancholy, as of one who might become a philosopher but never a warrior or statesman. In the ruins of a villa near Rome was discovered in 1863, a portrait statue of Augustus addressing his troops, the right hand extended in an attitude of command, and in the left the imperial scepter partially concealed by the folds of the purple mantle, the tunic being of scarlet and the breastplate sculptured and painted in most delicate workmanship. Power and authority are expressed in every line of the cold and searching features still of meditative cast, but not the cast of a philosopher, for love of wisdom had given place to love of sovereignty. In the wall of a church at Ravenna were found marble reliefs with idealized portraits, and in Lyons, once a Roman colony, a consecrated altar on which were carved the figures of subjugated nations; for all the peoples of the earth were eager to bestow on him the In honors accorded to a divinity. In bronzes and marbles, coins and cameos, his glories were perpetuated, a large cameo in the cabinet of antiquities at Vienna representing him enthroned as a god, sceptered and side by side with Roma, Victory presenting to him the olive wreath, at his feet the bird of Jove, and beneath him a multitude of captives.

Tiberius was a patron of art, if only for the satisfaction of his inordinate self-esteem, and to his reign belong some of the most valuable statues preserved in modern museums. Among them is the

'Sleeping Ariadne' in the Vatican, with serpentine bracelet and dainty apparel, the drooping head, the curving arms, and the air of languorous repose relieving the colossal proportions of the figure. The Vatican 'Nile,' a marble image covered with playful Cupids, discovered in the sixteenth century, is believed to be a copy of a group belonging to the age of the Ptolemies. In the British museum is the 'Apotheosis of Homer,' a relief by Archelaus, son of Apollonios, and a pleasing though somewhat pretentious composition. Enthroned, crowned, and worshiped as a god, a scepter in one hand and a copy of his poems in the other. Homer is seated near an altar on mount Parnassus, beneath him Apollo and the muses, and at the summit of the hill great Jove himself. Poetry raising aloft her torch and History casting incense on the blazing shrine.

Art, it has been said, makes all men contemporaries, and monarchs who would have been otherwise but names to hang historic robes upon, become, when interpreted by the living history of their portraits, like men of yesterday. As remarks a writer on sculpture, "its deepest interest in later Roman days links itself with the individual rulers who held the fortunes of the empire in their bloody hands, and who stand in bronze or marble among us, to suffer the judgment of all the ages on their persons and on their deeds. It is their destiny thus ever to figure before the eyes of the world. They are mighty and they are many; for the potentates of the past must have had a passion for their own likenesses. No modern photograph galleries can be more prolific than the old studios where the Roman rulers were taken in stone. A hall of emperors, comprising eighty-three busts is in the Capitoline museum; emperors generally heroic, meet us at every turn in the Vatican; many are in the Louvre; a very fine collection is assembled in the Uffizi, while imperial effigies of all sizes are plentifully scattered through palaces and villas. Numerous as they are, a host of others perished.

"Busts of Tiberius are in the Capitol; he sits twice, in semi-colossal dignity, in the Vatican and the Lateran, and an excellent statue with toga and scepter, is in the Lateran. Caligula is rare; not because he failed to set up his detestable image, but because he had hardly been dead an hour before the people threw down and destroyed every memorial that could be found of him.

His basalt bust is in the Capitoline museum, and we can gaze upon his colossal head in the sculpture gallery of the Louvre, where his uncle Claudius is also to be seen. Claudius is likewise in marble in the Vatican and at the Capitol, where his wives Messalina and Agrippina are with him, Messalina, a smiling, mincing creature with double row of curls; Agrippina, the proud and beautiful, yet pitiable mother of Nero."

And so we might continue with many others, of whom chapters could be written or quoted; but here we must confine ourselves to the more remarkable specimens of plastic art. By Zenodorus was fashioned the colossal statue of Nero in gilded bronze which, standing at the entrance of his Golden House, was remarkable only for its size, exceeding somewhat the height of the Colossus at Rhodes. In other statues, as in those of the Louvre, in one of which he appears as an athlete, Nero is shown at various ages and in many attitudes, but always, after reaching maturity, with features expressive of the coarseness and brutality, the vice and vanity characteristic of the man. For the decoration of his palace, its ceilings covered with carvings in ivory and its walls inlaid with precious stones, all the states of Hellas were plundered, the Delphic and other temples furnishing hundreds of bronze and marble statues. Then he masqueraded through Greece as a patron of art, ending his life with self-destruction—its only sensible act.

The Vatican statue of Nerva enthroned as Jove is one of the most striking in its collection, and if the emperor be not godlike, he has at least the appearance of a gentleman, which is more than could be said of most of the rulers represented in the colossal effigies of the gallery in the forum of Nerva. The forum of Trajan was also rich in statuary of marble, ivory, and bronze, most famous of which was the equestrian figure of the emperor which aroused the envy of Constantine, who freely appropriated as we have seen, some of the finest works of art.

To the reign of Hadrian as some relate, but probably the work of an earlier artist, belongs the Farnese Hercules of Glycon, so-called because his name appears in an inscription, though Glycon in fact had little to do with it, except for exaggerating the muscular effect. The Samson of the heroic age is represented as leaning on his club, which is partially covered by a lion's skin, the finely chiseled head, somewhat out of keeping with the stalwart frame, inclining forward as in meditation. Powerful is the play of limb and muscle, but altogether too strongly accentuated, these and other defects detracting from the merits of an otherwise noble composition. Of Antinous,—the superfluous god, as he has been called, bequeathed by Hadrian to the Romans—many statues and busts have been preserved from the ruins of Hadrian's villa. In the Capitoline museum, perhaps, appears to the best advantage the mysterious youth of the familiar legend, who sacrificed himself to preserve the life of his benefactor.

There is a dreamy, languid, effeminate expression in his features; the eyes deep-set and trist, and the low, broad forehead thickly clustered with curls. He appears in many characters, posing in the Capitol as Mercury, in the Louvre as a shepherd, and in the Vatican as Bacchus. Of other compositions mention might here be made; but except for rare or occasional works, we have reached the limit of the classic sculpture of Rome.

Of Roman paintings there is little to be said, for as with sculpture, the best compositions were almost entirely of Hellenic workmanship, and of the pictorial art of the Greeks a description has already been given. In its earlier forms, except for a little portraiture, painting was entirely decorative, and among the names first mentioned are those of men employed on temple embellishment. It was not until the reign of Augustus that landscape-painting was "invented," as Pliny terms it, by one Ludius, who excelled in forest and rural scenes and somewhat before this age we hear of a Cyzican woman named Laia as a famous portrait painter. Many of the emperors were liberal patrons of art, as we have seen, and not a few were connoisseurs, Julius Caesar, who more than once paid a million sesterces for a single picture, belonging to the latter class; or such at least was his reputation.

In the ruins of Pompeii, whose architectural glories have been grossly exaggerated, for it was but a Roman watering-place, are the most familiar specimens of decorative art; but these are merely imitations of the Greek masters, whether in theme or treatment. Most of the figures are mythological, though among them are many of value as illustrations of the lives and customs of the people. They are not without a certain beauty and grace; the coloring is brilliant, and sometimes in good taste, while in modeling and technical execution they are by no means devoid of merit. Among the best of them are those which represent the parting of Achilles and Briseis, Medea and her children, and the battle of the Amazons. In this connection may be mentioned the 'Aldobrandine Marriage' in the Vatican collection, which is in affinity with Pompeiian art, the mosaics from the baths of Caracalla, now in the Lateran, and the combats of gladiators in the Villa Borghese showing in common with other works the usual coarseness of execution.

In conclusion it may be said that in pictorial, as in plastic art, whatever there was of excellence was brought as spoils from Hellas, to grace the triumphs of conquerors, or to adorn the temples, the fora, the public streets, the palaces of emperors, and the mansions of the rich. The very abundance of Greek statuary and paintings rendered almost unnecessary the employment of Roman artists, even were they capable of producing works of equal merit; for it was far less costly to decorate an atrium or portico with ancient masterpieces than to order such statues as Italian sculptors could fashion. While among the productions of the latter there is not wanting a certain elegance, it is but a borrowed elegance, and toward the close of the empire symmetry and expression gradually disappeared, leaving nothing but a wilderness of commonplace. After the seat of government was removed to Byzantium, both the sculptural and pictorial compositions of the Roman world sank almost to the lowest point of degradation of which art is capable, becoming faulty and feeble in design, coarse and crude in execution, and lifeless as the face of the sphinx.

Notwithstanding periods of decadence, for twenty centuries or more Rome has been a center of art, and still in the nineteenth century, as in the first, it is the leading art center of the world. Yet, elsewhere in Italy, sculpture and painting were freely represented, as at Naples, a seat of wealth and culture throughout the imperial age and a favorite resort even for the emperors themselves.

Here it was that Nero masqueraded as an actor, hoping to meet in its Graeco-Roman population a more sympathetic audience than could be found in the capital. Of all the collections of Roman and Italian antiquities the most valuable is that which is contained in the national museum at Naples, where is much that is best worth preserving in the ruins of ancient cities. In Florence, originally a suburb of the Etruscan town of Faesulae, in Genoa and Turin, both of which played their part in the Punic wars, there are also many remains of Roman art; but of these nothing more need here be said, for the architecture and art of Rome in common with her conquests extended throughout the known world.

To Syracuse and Agrigentum brief reference has been made in connection with Grecian art. Almost coeval with Rome, the former was one of the leading figures in the great drama of the Peloponnesian war. Even then it was famous for its art; for within its walls, as Plato relates, all Sicily was gathered during the long tyranny of Dionysius; and not only Sicily but southern Italy, Hellas, and all the glories of the Hellenic world. Rich in truth were the art spoils that Marcellus secured from its pillage some two centuries later, after a long and obstinate siege, and again under Roman rule it became a splendid and flourishing city, mentioned by Cicero as still the seat of culture. Still more celebrated for its architectural monuments was Agrigentum, with its magnificent Doric temples, especially that of the Olympian Jove, whose ruins bear silent witness to the ancient grandeur of a metropolis noted for its luxury and wealth.

As to the art and architecture of Asia Minor much might be added to the little that has already been said. At an early period in the history of Hellas, Greek colonies were established on its western and northern coasts and on the islands adjacent, forming in time a chain of settlements in continuous series, but never extending far into the interior. Presently came Roman conquest and occupation, and with them Roman arts; so that to describe in detail the monuments of such cities as Pergamum and Rhodes, as Antioch, Ephesus, Smyrna, and Miletus would be almost to repeat the story that has already been told.

In the days of Attalus Pergamum became a center of art as well as the center of a powerful monarchy; for the king loved to celebrate his victories in monumental forms, inviting to his capital some of the foremost of Hellenic sculptors, and founding what has been termed the Pergamenian School. By Eumenes II was erected the great altar of Zeus Soter which stood in the agora, commemorating his defeat of the Gauls, its wealth and beauty of sculptural decoration causing it to be esteemed as among the wonders of the world. It was probably during his reign that the ancient Doric temple of Athena Polias was replaced by the splendid marble fane which was one of the finest ornaments of the kingdom that Attalus III bequeathed to the Romans. Later, Pergamum ranked with the leading cities of the province, one always leal to the Roman cause, its citizens rearing on the acropolis a stately temple to Augustus.

Of the ancient splendors of Rhodes, at one time the most splendid city in the world, with noble public edifices and works of art, no traces now exist, except the architectural fragments and a few of the altars of the classic age. To the Antioch which Seleucus Nicator founded his successors made numerous additions, and especially Antiochus Epiphanes, who gave to it many of its finest buildings. To Seleucus was ascribed the temple of Apollo and Diana, reared amid the grove of Daphne and destroyed in the time of Julian the apostate, with its colossal image of the god by the sculptor Bryaxis. A temple to Jupiter Capitolinus was built in imitation of the one at Rome, and a theater founded by Seleucid kings was enlarged and completed by Roman emperors. But even more for its streets than its structures was the city famous, the so-called golden avenues referring to the splendor of their columnar decoration, in which gold was freely used. In the principal thoroughfare, four miles in length, were as many rows of columns, leaving in the center a broad open space paved with granite, whence other streets branched at intervals, the porticos which skirted the former being continued in the form of arches at the points of intersection.

Though the daughter of Athens, Ephesus was more noted for wealth and luxury than for art; as we have yet, seen, in her temple of Diana, described in connection with Hellenic architecture, was a valuable collection of statuary, and paintings, the contributions of votaries and visitors. In Smyrna, once the most important and still the largest city of Asia Minor, were many imposing edifices, rising in tiers on its rounded hill of Pagus or clustering around its acropolis. In the sixth century Miletus, whose site is now a marsh, was the most flourishing of Grecian towns, a center also of literature, philosophy, and art. Chief among its monuments was the decastyle temple of Apollo Didymaeus, which, together with the octostyle temple at Sardis, ranks among the finest specimens of Ionic architecture.

In Roman fanes were often deposited treasures sufficient to keep in funds a score of banks. In the temple of Ops, for instance, were stored, as Cicero relates, the 700,000,000 sesterces,—equivalent to $28,000,000—which Julius Caesar left, largely for distribution among the people. This was mainly from the spoils of war; for Caesar began his public career some $1,250,000 in debt; but the Romans knew how to accumulate princely liabilities as well as princely fortunes.

Says Mommsen, speaking of the later republican era: "Ancient works of art were systematically hunted after statues and pictures less, it is true, than, in accordance with the rude character of Roman luxury, artistically wrought furniture and ornaments of all sorts for the room and table. The old Greek tombs of Capua and Corinth were ransacked for the sake of the bronze and earthenware vessels which had been placed in the tomb along with the dead. For a small statuette of bronze 40,000 sesterces

were paid, and 200,000 for a pair of costly carpets; a well wrought bronze cooking machine came to cost more than an estate. In this barbaric hunting after art the rich amateur was, as might be expected, frequently cheated by those who supplied him; but the economic ruin of Asia Minor in particular, so exceedingly rich in artistic products, brought many really ancient and rare ornaments and works of art into the market, and from Athens, Syracuse, Cyzicus, Pergamus, Chios, Samos, and other ancient seats of art, everything that was for sale and very much that was not migrated to the palaces and villas of Roman grandees."

The boudoir of a Roman dame is shown in relief in the Capitoline museum, the woman appearing in no very dignified attitude, for she is teaching her favorite tabby to dance to the sound of a lyre. Nymphs, Venuses, and fauns were the favorite subjects for the decoration of the villas and gardens of the wealthy, and genre works of all descriptions were cleverly executed for those of moderate means.

In the Sala della Biga in the Vatican are reliefs showing a circus race, together with the spectators' galleries, probably belonging to the circus which Maxentius built in memory of his son.

Among sculptors of the first century BC, in addition to those mentioned in the text, was Arcesilaus, of whose statue of Venus Genetrix, executed for Julius Caesar, the one now in the Louvre is believed to be a replica. A work whose motif has been frequently imitated is his marble lioness tormented by a group of winged Cupids.

In the remains of the palace which Diocletian built at Spalatro, where free from the cares of state he passed the closing years of his life, are many traces of the splendor of imperial abodes, though Diocletian was by no means one of the wealthiest of Roman emperors. It was almost rectangular in shape and covered about ten acres, its dimensions being almost identical with those of the Escurial in Spain. In the principal entrance, named the Golden Gate, are all the characteristics of the later period of Roman architecture, arcades leading thence to the center of the building, in the southern portion of which was the palace proper, with temples dedicated to Jupiter and Aesculapius. The private apartments, baths, and guest-chambers are on a magnificent scale, and extending along the entire seaward front is a spacious gallery forming the principal feature of the design.

Art and Architecture: Early Christian and Byzantine Period

The virgin dwelt for twenty-four years after the ascension in her house beside Mount Zion. One day the angel Gabriel came, and reverently saluted her, and told her that after three days she should depart from the flesh and reign with him forever. He gave her also a palm-branch from paradise, which he commanded should be borne before her bier. And the palm-branch was green in the stem, but its leaves were like the morning star. Then the apostles were miraculously summoned to be with her when she should die. And toward nightfall on the third day, Jesus came down with his hosts of saints and angels, and they ranged themselves before Mary's couch, and sweet hymns were heard at intervals till the middle of the night. Then Jesus called her softly twice, that she should come to him and she answered that she was ready joyfully to yield her spirit. And thus her spirit quitted the body and flew into the arms of her son; and she neither suffered pain nor her body corruption. And straightway there surrounded her garlands of flowers; roses which are the blessed company of martyrs, and lilies of the valley which are the bands of angels, confessors, and virgins. Thus reads an ancient Christian legend—Lindsay's Christian Art

Grouped about midway between the later classic era and the renaissance is the art of what have been termed the early Christian and Byzantine periods, the limits of which cannot be clearly defined, though it may be stated in general terms that it appears in certain rude forms during the first century, that it culminated in the reign of Justinian. it was not as before the and though still in existence as late as the thirteenth century, chief and at times the only form of art. The first specimens of Christian architecture differed but little from the Roman; for the converts to the new religion, though filled with zeal and enthusiasm, could give no expression to their sentiments in material shapes, and many cycles were required for the transition from Greek and Italian compositions to those which were purely Christian. Moreover, neither the founder of the new faith nor the apostles of his choosing left rituals or rules of church government to be observed by their followers; they must frame their own regulations; must worship as seemed to them best, so it be in purity of heart; must meet wherever they were permitted to assemble themselves together, in their dwellings, their catacombs, or beneath the vaulted mansions of the sky which were soon to be their inheritance.

In strange contrast with Roman mausolea, whence sculptured urns are still being disinterred at every new excavation, were the catacombs of the early Christians, resembling rather the pits and galleries of a mine, with narrow, labyrinthine passages that could not be entered without stooping, and were barely wide enough for men to pass in single file. On either side were small apertures for the reception of the dead, closed up with the slabs inscribed with their names and often adorned with some artistic device. For the dignitaries of the church larger sepulchers were provided, and the walls were decorated in symbolic forms of pictorial art. Here and there were loftier and more spacious chambers, with vaulted roofs and also adorned with mural paintings as symbols of the faith, but dark and gloomy as the grave. Such were the earliest of Christian temples, where in the distress of evil days the persecuted followers of the Nazarene met secretly by night to inter their martyrs and to appeal unto him who had promised to bear their sins for the strength and steadfastness which would enable them to endure their sufferings.

It was not until the reign of Constantine, when from the obscurity of their catacombs the Christians came forth into the sunlight of imperial favor, that churches were built in Rome or converted from other uses. While a few Roman temples, as the Pantheon, were prepared for Christian worship, they did not fulfill the requirements, for the entire congregation was accustomed to gather in communion around the altar, there to celebrate the love feast. Externally their own sanctuaries were of the

simplest, oblong in shape, with brick-faced walls of concrete and windows of translucent alabaster. Within were pillars of sculptured marble or columns from the classic fanes of the Capitol. Later came the basilicas, where the entire body of the faithful could meet, not only for the ceremonies but for the business affairs of the church.

Toward the end of the fourth century Ausonius writes to the emperor Gratian, his patron and former pupil: “The basilicas, once full of business, are now full of prayers for your majesty’s preservation.” Thus it appears that these structures had already been converted into sanctuaries, for which indeed they were so well adapted that they might have been built for the purpose. The naves and aisles were spacious enough for congregations larger than were ever gathered in mediaeval cathedrals, while walled galleries secured for women the privacy which at this time the sex demanded. For the clergy there was the transept or apse; for the bishop the curule chair, and for presbyters the seats of the judges, while on the spot where had stood a pagan shrine was erected the altar of the Eucharist, its mysteries shielded from obtrusive gaze by a curtained screen.

Notwithstanding their superstitions and their extreme enthusiasm, the early Christians were by no means lacking in common sense. Their architects were not slow to observe the suitability of Roman basilicas to Christian needs, while amid the great variety of other buildings there were many which would serve as models for halls of worship. It is rather in the adaptation of old forms than in the invention of new ones that their artificers excelled. Opposite the nave where the congregation was seated, the bishop sat enthroned among rows of priests in the vaulted and dimly lighted apse, whose floor was paved in mosaic and whose walls and roof were adorned with figures of Christ, of the disciples, the martyrs, and saints. On a canopied altar, above which was a triumphal arch resting on massive columns, sacrifice was offered in the presence of all on the most sacred spot in the sanctuary. The upper walls of the nave, broken by the broad arched windows which afforded a lateral light, were supported by rows of pillars which divided it from the aisles. In the larger buildings there were separate entrances both for nave and aisles, and attached to them a portico, with colonnade, fountain, and wide open space, all who entered being led by parallel lines of columns toward the spot where the rites of the church were being celebrated beneath the solemn effigies of the Messiah.

In later forms the general design of the basilica was never entirely lost sight of, if sometimes altered and extended almost with beyond recognition, a transept or other transverse structure, side apses, being introduced into the ground plan, and an upper story built above the aisles and continued over the portico. As adjuncts there were also circular or polygonal buildings which served as baptisteries or chapels, the two being later combined in one, though at first neither baptismal, marriage, nor funeral services were performed in the basilicas. Among the earliest specimens is the mausoleum of Constantia daughter of Constantine, now the church, of Saint Constanza in front of the Porta Pia. It is of the ancient Doric order and the last one of its kind. From the central space, surmounted by a lofty dome, a low gallery is separated by a circle of double columns, connected by arches and coupled by a common entablature. Of similar design, but of smaller size, is the church of Saint Stefano Rotondo, and among baptisteries the finest now in existence is that of the Lateran, an octangular edifice with imposing columniation, an upper row of pillars giving an air of lightness to this elegant fifth century composition.

As to the forms of art and architecture represented in these new creations there can be no difference of opinion. Their antique columns and richly ornamented entablatures point, in common with other

details to the art of the Graeco-Roman period which, though now in its decadence, and even technically degraded, still supplied the richest of materials for the Christian artificer fell into decay. As the temples and palaces of the imperial age gradually, the finest of columnar and other decorations were found amid these splendid and costly ruins which furnished for the embellishment of earlier basilicas an inexhaustible source of wealth. Those of later date were of inferior and often of heterogeneous design; nor can it be said that in either there was much evidence of taste. Side by side in the same arcade or portico were columns of various sizes and styles, the simple and massive Doric shaft being found in juxtaposition with the graceful Ionic or the slender and florid Corinthian. Pillars were cut down to the required length, and those which were already too short were lengthened by loftier pedestals or crowned with loftier capitals. In truth it appeared as if ancient architecture had sunk into chaos amid some barbaric age; yet only in this fashion could Christian ideals fulfill their aim, leaving the dead past to bury its dead, grouping the remains of the antique into new and anomalous combinations, and selecting from them only what was best suited to the new conditions. But if in architecture and sculpture they were content with the crumbs that fell from the table of the antique, it was not so with their painting, which though modeled on classic forms, soon became individual in spirit and signification.

Among the earliest of basilicas, and one of the finest in design and decoration, was the present church of San Paolo, erected during the reign of Theodosius, and restored with modern features after its destruction by fire early in the present century. A nave of magnificent proportions, flanked with the stately granite columns which separate it from double aisles with similar columniation, opens into a transept with grand triumphal arch, giving further emphasis to the spacious apse more than 80 feet in width. In front an atrium and encircling colonnade completed the composition, the interior walls being adorned with paintings, and the transept, arch, and apse with splendid mosaics. The modernized church of Santa Maria Maggiore was also a Roman basilica of smaller but still majestic proportions. To an earlier age belongs the original church of St. Peter, founded, as is said, by Constantine on the ruins of Nero's circus, where the apostle ended his career with a martyr’s death, and in the fifteenth century destroyed to make room for the greatest of Christian temples. Though built of brick, with plain arched windows and little of exterior decoration, internally it was one of the most imposing of basilicas, its transept, nave, and aisles divided by Corinthian pillars, and in the central curve of its apse the pontifical chair, screened by columns of Parian marble from the temple of Solomon, or so, at least, it was claimed. Among other basilicas, more than a score in number, and extending from the fourth to the twelfth century, were that of Santa Sabina on the Aventine mount, with rich antique columniation, and the church of San Clemente retaining much of its original form—the atrium in front of the entrance, the choir and pulpits, the canopied altar supported by pillars, and behind it the throne of the bishop, with semicircular rows of seats surrounding the apse on either side.

When, early in the fifth century, Ravenna was selected by Honorius as the capital of the western empire, the building of splendid monuments was undertaken, and by later rulers continued; for as the seat of Byzantine exarchs, Ravenna also became a seat of Byzantian art.

Still in this historic, but now obscure and almost deserted city, its ecclesiastical architecture is of transcendent interest, the admixture of Byzantine and early Christian designs, the latter mainly in colonnades and mosaics, affording some of the most remarkable examples of the period under consideration. The exterior plan is by no means attractive: for, says a writer on this subject, “the outside of a Ravennese basilica is merely a plain, unadorned pile of brick, and if there be any artistic

grouping or outline about it, it is in the campanile which a later age has added. But if thus unattractive without, the churches of Ravenna are all glorious within. The eye dwells with genuine delight on the long unbroken rows of pillars and arches, their marble shafts, their floriated capitals, sometimes the work of Christian craftsmen, sometimes the spoils of heathendom pressed into the service of the sanctuary. Their plan allows a wide field for void spaces; but these spaces are filled with wonderful mosaic paintings which look down upon us as fresh as they were more than a dozen centuries ago."

Of the ancient five-aisled cathedral of Ravenna, now entirely modernized, there remains only the adjacent baptistery, decorated in the fifth and sixth centuries with mosaics of the apostles, and still almost intact. The mausoleum of Galla Placidia, sister of Honorius, containing also the tombs of three emperors,—her husband, brother, and son—is in the form of a Latin cross, surmounted by a cupola encircled with semi-domes on which are depicted scriptural figures and scenes. Above the nave of the church of San Apollinare Nuovo are beautiful specimens of mosaic art representing processions of virgins and martyrs approaching the Savior, who in one group is attended by magi and in another enthroned in glory and guarded by ministering angels. The minster of Aix-la-Chapelle was modeled, as is said, by Charlemagne after the basilica of San Vitale one of the most remarkable of Christian monuments and noted also for its life-size mosaic portraits of Justinian and Theodora surrounded with courtiers, guards, and priests. Of San Apollinare in Classe, or Classis—the former port of Ravenna—the decorations, though impaired by damp, are on a magnificent scale, especially the stately Corinthian columns of marble and the triumphal arch and apse, where is a large jeweled cross symbolic of the transfiguration, Moses, and Elias appearing in clouds on either side.

In many lands whose Christian rites were borrowed from Rome, and even in the where there did remoter districts of Italy, not exist, as in the ruins of Roman temples, palaces, and amphitheaters, quarries of architectural materials basilicas and churches were built in rude imitation of those of the imperial city. Such there were as far north as Britain, as far south as the verge of the Libyan desert, and however divergent in form, the diversity increasing with distance of time and place, there were in all the general modes of treatment common to Italian and early Christian architecture. Hence were gradually developed the Romanesque and Gothic styles, not from previously existing orders among the nations themselves, but as clearly deduced from the Roman as was the Roman from the Greek and the Greek from the Egyptian and Persian. Yet there was an important modification of Roman art arising from contact with the east, and this was commonly known as the Byzantine.

The ancient church of Saint Mark in Venice was one of the earliest and strongest specimens of purely Byzantine architecture, though in its present shape, constructed as it is from the spoils of many other buildings both sacred and secular, it forms of itself a museum of sculptural and architectural remains, extending from the age of Constantine to the later renaissance. In a grass covered field planted with rows of trees, where is now the square of San Marco, was erected early in Venetian annals the Christian sanctuary dedicated to Saint Theodore, then the patron saint of Venice, on the spot now occupied by one of the grandest temples of the medieval ages. Near it was a small ducal palace built for the first of the doges, together with a private chapel, the ashes of Saint Mark, thenceforth the tutelar spirit, being placed in its confessio. Presently the latter became the chief but not the cathedral church of Venice, until late in the tenth century both chapel and palace were destroyed by fire.

While it is true that the transition in architectural forms was not completed until the age of Constantine, long before that date, long before Christianity had received in Rome the stamp of official

sanction churches had arisen under the influence of the new civilization. Some were of the early Christian order, some of the Byzantine, and others an admixture of both, since for the origin of Byzantine architecture we must not look to Byzantium, examples in Syria and elsewhere in Asia Minor pointing to an era not far removed from that of the destruction of Jerusalem. Grouped near the edge of the Syrian Desert and in the neighborhood of Antioch are the remains of basilicas deserted, as were other buildings, just as they stood when Islam became mistress of the Orient. In Algeria, Egypt, and Nubia are also the ruins of ancient sanctuaries, while the so-called White convent, on the border of the Libyan Desert, a fortified and mysterious structure, resembling rather a pagan temple, was unquestionably a Christian edifice of the early and troublous times. Of Byzantine pattern was the many-aisled and galleried basilica which Constantine erected above the holy sepulcher at Jerusalem, as also was the still existing church which his mother Helena built at Bethlehem in honor of the virgin.

When from Rome to the city founded on the Bosphorus by a roving band of Megarians, early in the seventh century, Constantine removed the seat of imperial power, it was already a place of repute, albeit of evil repute. Though Christianity had gained here a feeble foothold, the inhabitants were less noted for godliness than for licentiousness and immorality, their vices surpassing even those of the modern Turks. They were not only a dissolute but a lazy and effeminate people, passing their time in carousing at taverns or loitering around the streets. In peace, say the historians of the time, they trembled at the voice of their own demagogues; in war they quaked at the sound of a trumpet, and only through the savor of extemporized cook-shops, distributed among the ramparts, could they be induced to man the walls. Such was ancient Byzantium as Constantine found it, occupying only the easternmost of the seven hills where stand upon two continents the more populous quarters of the metropolis by the Golden Horn.

It was the aim of Constantine to build on these seven hills a new capital, with temples and palaces as splendid as those of the imperial city, borrowing for this purpose all that was best worth preserving in the faded art of an empire already tottering to its fall. While partially successful, erecting magnificent churches and mansions, with walls that required the labor of 40,000 Goths to make safe the abodes of the orthodox, it was not until a century later that Byzantium became the counterpart of Rome. Though after its many wars, conflagrations, and earthquakes, the relics of the Byzantine age are by no means plentiful in modern Constantinople, there are sufficient remains to recall its past, especially in the neighborhood of the hippodrome, where was the center of civic life and too often of civic tumult. Among them are the ruins of palaces and pillars—a few of the latter still almost intact—which are associated many historic names, from Marcus Aurelius Claudius to Eudoxia and Chrysostom. The tombs of the great are almost at every corner and court, and of Christian sanctuaries there is much to remind us; yet the ancient capital of the west has long been under ground, and he who walks through the thoroughfares of the Ottoman metropolis passes through the streets of a city which has for substructure a city of the dead.

The landward walls of Byzantium, extending in four lines across the promontory which they enclose, are the work of many hands and many epochs, emperors from the reign of Theodosius almost until the Mohammedan conquest adding to its fortifications. At intervals on the two inner lines are castles extending in unbroken series from hill to valley, and at either end of all the lines is a citadel, the marble towers by the Golden Gate remaining almost as they were in the fifth century, though others belong to a more recent period. The ramparts were constructed with a special view to the protection of

palaces and churches, the Leontine wall, built by Leo the Armenian, forming a bulwark which yielded only to the heaviest artillery. In truth such protection was needed; for the entire history of Constantinople is but a history of its sieges, until the last of the Constantines laid down his life in defense of the capital which the first one had founded.

Constantinople was a city of palaces and temples, the imperial edifice, or rather group of edifices, enclosed with spacious gardens that extended from the hippodrome to the shore of the sea, occupying the site where now stands the mosque of Ahmed. In structural forms it differed but little from the mansions of the emperors already described in connection with Roman architecture. From the church of Saint Sofia, the grandest monument of Byzantine art, it was separated by the public square known as the Augusteum, whose statuary, including a silver image of Eudoxia, belonged rather to Italian than to Byzantine sculpture. During the twelfth century or church Blachermae became the imperial quarter, where were the palace of that name and the Agia Theotokos, of the Virgin Mary, a finished specimen of the later Byzantine period. Visible from the Golden Horn is the church of the Savior, now the mosque of Kahirch, near the southern extremity of Constantine's wall. In this, the most ancient of ecclesiastical edifices, enriched with mosaic decorations and still beautiful even in its decay, were the remains of martyrs who suffered under the persecution of Decius.

To the reign of Justinian belongs the church of Saint Sofia, reared on the site of the temple which Constantine erected in honor of "Divine Wisdom," later occupied by others of that name. Its architects were Anthemius of Tralles and Isidorus of Miletus, under whose orders was an army of workmen with scores of master builders. Externally it is of the plainest, with walls of common brick and dome of pumice-stone and Rhodian brick, no wood being used except for the doors; since fires were frequent, and for the building of this structure $5,000,000 had been withdrawn from a treasury by no means well supplied with funds. The dome, more than 100 feet in diameter and 180 in height, with adjacent semi-domes, is shallow in form, resembling rather the segment of an arch, and rising from an entablature supported by the four grand arches which rest on massive columns enclosing a quadrangular space. The apses at either end, whose vaulted arches continued the lines of the domical treatment, gave to the extremities of the nave an oval shape, as in Roman basilicas. A portico covered the entire front, where was an atrium surrounded with colonnades; at the back were side apses used as chapels, and lengthwise were low side aisles whose projecting counterposts formed a number of subordinate spaces, the galleries above being reserved for female worshipers.

If the external design of this famous sanctuary was lacking in symmetry of proportion, the interior, lined with many-colored marbles and stored with the art spoils of Hellenic and oriental cities, of Athens, Ephesus, and Cyzicus, of Baalbek and Heliopolis, surpassed in magnificence all Byzantine temples. The dome, the vaulted roofs and apses were covered with golden mosaics interwoven like figured tapestries and set in ornamental frames, the reflected light filling the courts and aisles with a brightness and splendor as of the new Jerusalem, while the manifold varieties of structural form added to the striking effect of a composition as bold as it was ingenious. Converted into a mosque after the Turkish conquest, and with many later but minor alterations, the building was restored about the middle of the present century, when the weight of the dome threatened the supporting walls with destruction.

In addition to those already mentioned, of the five hundred temples of worship in Constantinople at the opening of the thirteenth century, a few are still in existence, either in the form of churches or

church mosques. Among them is the Kutchuk Aya Sofia, whose lower story was the original model of the sanctuary above described. Erected for Justinian, the greatest of the eastern emperors, though a barbarian by birth, it was dedicated to the martyrs of his native province of Illyricum, and here, as is said, the Messiah appeared among his followers. In the basilica of Saint John of the Studium was the monastery of the Acoemiti, or watchers, together with a school of Christian poets. Many of the mosques are merely adaptations of churches, their towering minarets, casting at night a warm and radiant glow far over the waters of the Bosphorus, forming a striking contrast with the somber structures of the Byzantine era.

The reign of Justinian, extending over nearly two-score years and ending in 565, was, as I have said, the culminating period of Byzantine art and architecture. While by no means a brilliant epoch, it was mainly during this age that the former glories of Rome were in a measure revived on the shores of the Bosphorus, where lingered for centuries the civilization of the ancient world. In the transition from the simple design of the basilica to more varied and complicated structures, and especially in the domical compositions that formed the point of architectural emphasis, there was a boldness and sometimes a grandeur which gave evidence of technical knowledge and skill. Marbles of various colors were freely used for walls and columns, for friezes, cornices, and rails, with brilliant mosaics for floors and vaulted ceilings. Yet there was a rigidity and often a clumsiness in the imitation of Hellenic models without the plastic freedom of the Greeks, as appears, for example, in the capitals of Corinthian pillars whose foliation lies flat on the surface, with heavy, projecting volutes and squat, though richly decorated impost. With all its splendor, there was a coldness in Byzantine art as in Byzantine life, gradually stiffening into petrifaction; for in the spirit of Christianity there was nothing national, and after the sixth century we search in vain for the expression of a new movement or even a new idea.

The rich and sensuous statuary of the Greek and Graeco-Roman periods was but faintly imitated by the Christians, and with fear and trembling lest they should relapse into the idolatrous forms forbidden to those who would worship God in spirit and in truth.

Yet they had no new methods of their own to substitute for the antique, which they were only too glad to copy, so far as such imitation was permissible. But however inferior as compared with classic models, it is probable that early Christian sculptures were the best of the age; for, as we have seen, in the reign of Constantine Roman art had sunk to the lowest point of degradation of which art is capable. While there are no indications of superior technical knowledge and skill, their faith had inspired a certain rude vigor which at least contrasted favorably with the expiring efforts of pagan sculptors. Nevertheless it was rather in painting, where there was little danger of repeating heathen conceptions, that the early Christian era found its deepest and freest expression.

It is worthy of note that the sculptures and paintings of this period, however primitive, were for the most part lightsome and joyous in theme, their artificers giving more attention to choice of subject than to artistic qualities. They cared not to reproduce the scenes of persecution which they had suffered, seldom dwelling on the martyrdom of those who had been as brands for the burning or as a prey to wild beasts, seldom referring even to the martyrdom of their lord. To them the earth was but an abiding place, and if it contained no spot where they could meet together, except in the catacombs, even there all was bright and peaceful, suggesting only the eternal peace that was to come; so that

their church was never so strong as when its only temple was in this "submerged tenth" of imperial Rome.

Marble sarcophagi afford the finest specimens of sculpture, many of them richly decorated in imitation of pagan mausolea but with scriptural topics. The subjects are from both the testaments, as the sacrifice of Isaac, the ascension of Elijah, Job and Christ his sufferings, Daniel and the lions, Jonah and the whale, appearing in his miracles, his sermon on the mount, and his triumphal entry into Jerusalem. Though of the founder of Christianity, no statue has been preserved, he often appears in reliefs, the figure of a shepherd being the favorite form, while in the catacombs of Saint Calixtus he is painted as Orpheus playing on the lyre; for as to the great musician, all nature was obedient to Christ. Mythology is freely represented in the art of the early Christians, who did not hesitate to appropriate any tradition or motive to which they might give an interpretation consistent with their faith. The cross was the symbol of redemption, the palm of eternal peace, the lamb, the vine, and other emblems being plentiful on the walls of tombs on vessels and implements. The Lateran and Vatican museums are rich in sepulchral decorations, among the most remarkable specimens being the sarcophagus of Junius Bassus, found in the crypt of the ancient basilica of St. Peter, and that of the daughter of Constantine, covered with vines and with figures gathering and crushing the grapes. In a sarcophagus beneath the pulpit of San Ambrogio in Milan are medallion portraits of its occupants, on one side of which is represented the adoration of the three kings, and on the other the youths who refused to worship the idol of Nebuchadnezzar, while below Christ is addressing his apostles.

To the fifth century belong the ivory reliefs on the chair of St. Peter, still contained in his basilica but among its most strictly guarded treasures. Of sixth century workmanship is the throne of Bishop Maximianus in the Ravenna cathedral, carved in front with figures of John Baptist and the four evangelists, saints and other figures on ivory plaques showing a strange admixture of forms, but always distinctly Byzantine and with the stiffness of figure and gloom of feature inseparable, as it would seem, from Byzantine art. On the bindings of manuscript copies of the gospels are some beautiful reliefs, though largely in imitation of the diptychs of the later consular period. Statues are rare at this epoch, except for those of the emperors, which were in the feeblest style of Roman art, the most important work being the seated bronze figure of Saint Peter now, in the nave of his cathedral, a dignified composition both as to features and drapery. Of similar style, though modernized in part, is the marble statue of Saint Hippolytus in the Lateran museum; in the Christian museum of the Vatican are marble statuettes of the Good Shepherd, a constantly recurring figure usually represented as youthful, slender, elastic, and bearing on his shoulders the rescued lamb, the idea being probably borrowed from the Hermes of the Greeks, carrying a calf on his shoulder. And so he appears in other forms, modeled after the type established in the paintings of the catacombs, immortally young, suggestive always of peace, and with arm extended as in benediction on the world; for the stern features and emaciated form of the later Christ are found only in the decadence of Byzantine art.

To sculpture, as to architecture, a new impulse was given during the reign of Justinian, Ravenna threatening for a time to supersede Byzantium as the home of art. Especially did the former excel in its low reliefs of plants and birds executed on the marble slabs of which altars, screens, and pulpits were fashioned. Yet while Byzantine art extended throughout the west, its seat remained at the city of Constantine, even in its most degraded period. It was for metal work that her sculptors were most famous, and to the extensive use of gold and silver in plastic art is largely due the scarcity of existing specimens, their commercial value being the cause of their destruction. Not only were the precious

metals lavishly employed for church and other decoration, but even as surface ornaments for statues and reliefs, however injurious to artistic simplicity of effect. One of the most striking specimens is a series of eighth century reliefs executed on the wall of a church at Friuli, near Trieste, lines of female saints carrying jeweled crosses and crowns. Of similar workmanship, especially as to drapery and pose, are the figures of Theodora and her attendants in the church of San Vitale at Ravenna.

A barrier to the development of art was the dominating influence of the Eastern Church which succeeded that of the early Christians, forbidding, as it did, the portrayal of beauty or comeliness even in Christ himself; for it were impious to carve or paint him with the noble features and figure of the pagan gods. The saints, moreover, must be represented with a certain cast of features, in certain attitudes and disposition of drapery, even the colors being strictly prescribed, and from these rules no deviation was permitted. Hence it was that no progress could be made in art, unless we may class under that head the fashioning of altars and crucifixes, of censers and reliquaries in gold and gilt, enameled, filigreed, and studded with precious stones.

Nor were conditions improved during the corruption of the church which Charlemagne strove to repress, seeking to make his empire the center of the faith and adopting Byzantine art methods, as appears in the court chapel which later became the cathedral of Aix-la-Chapelle. With the spirit of Christianity vanished the spirit of Christian art; the world was drifting into darkness, and being in the world and of the world, the church shared in its depravity, though at this era fulminating its most awesome denunciations. Instead of the peace to come, as in the church of the catacombs, the wrath to come was now the absorbing topic of mankind.

From a savior and peace-maker Christ was transformed into an avenging deity, and only through penance and penitence could be reached the promised mansions in the skies. Pleasing forms in marble, ivory, and gold, gave place to ghastly crucifixes and ghastly saints, devils in stone inflicting or suffering torments, while over church doors were sculptured the second advent and the last judgment, which the year 1000 was to witness.

But the year 1000 passed away, and still the Lord tarried, as yet he does, though times without end his coming has been confidently predicted. Meanwhile was felt the influence of the crusades and of mediaeval chivalry, gradually penetrating through the dark ages, its light growing ever stronger and clearer until the dawn of the renaissance. Nevertheless, for many centuries after the seat of government was removed from Rome to Byzantium, sculpture was almost a lost art, not only in Italy and the eastern empire, but throughout Europe. By the early Christians, as we have seen, and by the earlier Byzantines works of merit were occasionally executed under the inspiration of a new and living faith. As for the rest it may be said that with rare exceptions, as in the productions of Niccola Pisano and the Comacine masters, the phantom of Byzantine art, and especially the art of the monastic system dominated the entire world. In its sculptural forms there is nothing that need further detain us, for such was its stiffness and monotony that any given statue or relief might have been produced in one country as well as in another, since there were few but monkish artists to design and few but monkish artificers to execute.

As with sculpture, so with painting, Roman catacombs were the cradle of Christian art, though neither in these burial places nor in the earlier chapels and basilicas are there any but decorative forms. Except as to theme, there was little difference between Christian and pagan depictions, the former being modeled after the antique both as to coloring and design. In common with those selected for

sculpture, the subjects were almost entirely scriptural, yet not without an admixture of heathen mythology, Old Testament scenes being especially plentiful in the catacombs of Rome and Naples. While the lives of Christ, of the apostles and martyrs, are freely represented, there is nothing to remind us of their sufferings, symbolic painting being most in favor, as in the sister art. Says one who has written well on this period: "Not a thought of bitterness or revenge expressed itself in sculpture or painting during three centuries; not a single instance has been recorded of the tortures or martyrdoms which have furnished such endless food for the pencil in later ages. Even the sufferings of Christ are merely alluded to by the cross borne lightly in his hand as a scepter of power rather than a rod of affliction; the agony, the crown of thorns, the nails, the spear seem all forgotten in the fullness of joy brought by his resurrection. This is the theme; Christ's resurrection and that of the church in his person, on which, in their peculiar language, the artists of the catacombs seem never weary of expatiating."

In the fifth century allegorical figures had given place to personal representations, especially those of Christ and the virgin, the oldest of existing portraits being discovered in the catacombs, and the best in that of San Ponziano, where probably the earlier type of countenance was established. The features of the Messiah are of oval shape, encircled with waving locks of brown hair parted in the middle; eyes lustrous but thoughtful and serene in expression; lips perfectly chiseled, and silken beard in hue resembling the hair. The right hand is held aloft as in warning or entreaty and in the left is the book of life.

Compare this with the letter which Lentulus, an officer under Pilate, addressed to the Roman senate, one that, even though it be a forgery, doubtless embodies the conceptions of the age: "A man of stately figure, dignified in appearance, with a countenance inspiring veneration, and which those who look upon may love as well as fear. The hair rather, dark and glossy, falls down in curls over the shoulders, and is parted in the midst after the manner of the Nazarenes. The forehead is smooth and remarkably serene; the face without line or spot, and agreeably ruddy. The eyes are grayish-blue and full of light; the nose and mouth are faultless, and the beard the color of the hair, not long but divided." Among other portraits is one said to have been taken from an intaglio executed by order of Tiberius. As further evidence at least of the existence of the Messiah, there are the writings of Tacitus, who merely remarks, however, that "there was a man called Christ, who was crucified for stirring up sedition in Judea."

In the year 431 the council of Ephesus prescribes the modes for artistic representations of the virgin, whose appearance is thus in substance described in the Historia Ecclesiastica of Niccphorus, a monk connected with the church of Saint Sofia, and thus having access to documents no longer extant. She was of middle height, though many assert that she was somewhat tall of stature. Her features were oval and her complexion pale; hair light, eyes of piercing aspect, with olive-colored pupils. The brows were arched and dark, the nose rather long, and the lips wore a placid smile when speaking. She spoke little, and her speech was never troubled, but courteous, grave, and tranquil. Her attire was without ornament, and in her deportment an air of dignity was combined with all the graces of womanhood. One of the most ancient figures of the Madonna, now in the catacombs of Santa Priscilla, shows her in seated posture, with the child in her arms a light veil on the head, and opposite her, a dignitary of the church pointing to a star above the group. To Saint Luke have been attributed many portraits of the virgin, a chamber in the church of Santa Maria on the Corso being claimed as his original studio. But there is no evidence that the evangelist was also an artist, the works ascribed to him being probably

from the hand of Luca, a medieval monk and one of the first to set the fashion of painting the virgin with tawny hue of skin.

Of Saint Paul there was at least one portrait, or portrait bust, belonging to the second century, Chrysostom claiming its ownership though leaving no description. He is usually portrayed, however, as slight of stature, clad in white mantle, beneath which is a chiton of blue, carrying in one hand a sword and in the other a roll of his epistles. The features are expressive; the forehead lofty, nose aquiline, and eyes sparkling with the fire of enthusiasm. The baldness of Saint Peter, as he has come down to us, is attributed to the shaving of his head by the Gentiles in token of derision, while the thick, curling beard is frosted with the touch of time. The physiognomy is somewhat coarse, but manly, intelligent, and denoting strength of will. In one hand is the silver key of bondage and in the other the golden key of absolution.

Mosaics were freely used in early Christian and Byzantine art, for here was a medium well adapted to the stiffness and also to the preservation of both, existing specimens dating back to the fourth century, as in the vaulted chapel of Santa Constanza in Rome. The subjects are mainly such as have already been described, and in their treatment there is little worthy of note, except for transition of style. In Ravenna churches are the finest works, and especially in the mausoleum of Galla Placidia, where the hart, typical of a soul that is thirsting for redemption, appears among the usual figures of the Good Shepherd and his flock. In the baptistery of San Giovanni in Fonte, Christ is standing in the water, the river Jordan appearing as a god, and on a background of blue are the apostles in colossal effigy.

On the triumphal arch of the church of San Paolo in Rome, recently restored, are some of the most valuable of fifth century mosaics, rescued from a basilica during its destruction by fire. The central figure is a large medallion bust of Christ, austere of aspect, with the evangelists symbolized above, and on bended knee, on either side, the white-robed elders of the Apocalypse. It is an impressive composition, though the forms are outlined with the usual stiffness and constraint. A better work, and of sixth century execution, is contained in the apse of the ancient church of San Cosmo e Damiano, near the palace of Augustus. Christ is coming in the clouds of glory golden-tinted by the setting sun, his right hand extended in invitation, and in his left a roll wherein are inscribed the names of his elect. In the features and attitude are well expressed the majesty and dignity of the divine; but the effect is not improved by the arrangement of the mantle, which is thrown over the left arm after the fashion of the antique, resembling somewhat a Roman orator addressing the senate or pleading in the forum. In the foreground are saints, in company with whom is Pope Felix IV, and on the frieze below the symbolic and ever recurring lambs or sheep, of which one tires somewhat in these early Christian paintings. The scene is laid on a blue ground, and it is partly the change to a ground of gold, with golden and other decorations in keeping with the luxury and wealth of the eastern capital that marks the transition to the art of the Byzantine period.

As with architecture and sculpture, so with pictorial art, the culminating era was in the reign of Justinian, after whose reign the craft of the Byzantines, remodeled under eastern influences and superseding the moribund schools of Italy, made itself felt throughout the Christian world. Yet it was not without a struggle, a long and bitter struggle, that art retained its hold as a power in the church; for the decoration of temples and the splendor of their services gave rise to the charge of idol-worship and worked into a frenzy the fanaticism of iconoclasts. After many deliberations, first as to whether

sacred subjects should be represented at all, and then as to methods of treatment, it was decided by the council of Constantinople, held near the close of the seventh century, that Christ must appear in human and not in symbolic form. To this period belong the earliest paintings of the crucifixion, which presently became universal. At first we have the youthful figure of the early Christian age standing calmly erect on the cross, but robed, and no longer in shepherds garb. This, however, soon gives place to the downcast head, the form and features distorted with agony that have since become all too familiar, though here is none of the beauty of the divine. In addition to the suffering Savior there are also suffering saints, whose spirituality is expressed by austerity of feature and meagerness of frame. Tall, thin figures as befits a countenance filled with stiffen into rigidity, gloom and sadness; the head, narrow in profile, is gray- haired and bearded, and the eyes gaze forth with spectral stare from contracted and frowning brows. It is only in the drapery that art appears in its lighter vein, and even this is overloaded with golden and bejeweled embroideries; for while there was a certain splendor in the Byzantine school, it was a barbaric splendor, gaudy decorations, such as would dazzle the beholder, being used as a cloak for artistic ignorance and incapacity.

Neither in the early Christian nor in the Byzantine school is there anything worthy of mention apart from ecclesiastical art; for historic paintings were feeble and few, while landscape and genre were almost unknown. In both a favorite subject was Christ triumphant, appearing amid the clouds as judge of the earth, surrounded with angels, apostles, and saints, with the Madonna at his side, and in Byzantine depiction often in proximity with the emperor and his suite in the splendid costumes of the court. Of this an example in sixth century workmanship has been preserved in the church of San Vitale at Ravenna, where beneath Christ enthroned on the vaulted roof of the apse, appear on the wall of the tribune the emperor Justinian and the empress Theodora in magnificent attire, walking in procession among hieratic and secular dignitaries. To later eras belong the mosaics of San Apollinaire in Classe, of San Teodoro, Santa Agnese, and the chapel of Scala Santa in Rome, of San Ambrogio in Milan and of San Marco in Venice. In all of them there is a sameness, both as to motif and execution, though with occasional varieties of treatment. The Venetian mosaics at Saint Mark's, for instance, cover a wide range of subjects and styles, their execution dating from the tenth to the fourteenth centuries. Here is the famous picture of the Ascension, where Christ is rising above the sundered gates of hell, holding in one hand the banner of victory, with the other supporting the form of Adam, and with the apostles in prayer on either side.

In the church of Saint Sofia are some remarkable specimens of sixth century mosaics, though many of the best figures have disappeared, among them that of Christ enthroned on the dome as judge of the world. From beneath the coat of whitewash with which Mohammedan orthodoxy had covered them were brought to light during a recent restoration the forms of cherubim, of prophets, martyrs, and bishops, with a representation of the tongue of Pentecost, as it appeared unto man. On a panel of the main portal Christ is seated on a richly decorated throne, on either side of which are medallions of the virgin and of the archangel Michael, while at the foot is an emperor, supposed to be Justinian, in kneeling attitude and gorgeous attire. The drapery stands forth well on the golden ground; but the figures are rigid, the features lacking in expression, and the entire composition in feeble imitation of the antique.

But if at this period there was a want of plasticity corresponding with the rigorous precepts and formulas of the church, there were not wanting artists capable of nobler conceptions, and especially does this appear in the miniature paintings of the later Byzantine school, where is often a delicacy of

touch for which we search in vain in larger works. Of these not a few have been preserved on parchments, illuminated manuscripts, and in various other forms. In the Vatican library, for example, is a roll, more than thirty feet in length, with watercolor miniatures of scenes from the life of Joshua. Here also, among other treasures, are illuminated copies of Virgil and Terence, studied after the antique, but in an earlier and ruder form of art. Elsewhere, as in the libraries of Milan, of Pans, and of the British museum are similar productions, while in the Florentine monastery of San Marco, now a national museum, are fifteenth century missals, gospels, and prayer books in the style but not of the age of the later Byzantine.

In conclusion it may be said that the art of the period which we have passed in review, extending as it did from the first to the thirteenth century, while producing new features and ideals under the impulse of a purer and more enlightened faith, gradually sank into antique formalism and ended almost in petrifaction. The nations belonging to the ancient cycles of civilization had exhausted themselves, and from them no fresh life could be evolved even by the enthusiastic votaries of the new religion. They could rear, as types for future ages, basilicas and churches suitable for worship and decorated with sculptured and painted figures all more or less faulty in design and execution; but they could go no further. If to this it be added that they reproduced in forms however rude the faded glories of the classic age, preparing the way for the rich and varied creations that were to be developed therefrom, these are the chief and perhaps the only merits of early Christian and Byzantine art.

At Rome and Naples the catacombs of the Christians are most numerous, the earliest inscriptions that have been discovered belonging to the second century and the greatest number to the fourth and fifth centuries.

The fountains or tanks in the atria of Christian basilicas were placed there that worshippers might wash their hands before entering the body of the church, whence probably originated the custom of dipping the fingers in holy water, now common to all catholic countries.

Most of the early Christian churches in Africa were of small proportions, though often with several aisles divided by rows of columns. Among the most interesting was the one at Djemla in Algeria, a simple rectangular edifice, its nave terminating in a choir with pillars widely spaced, while the floor was covered with mosaics of such purely classical style as points to a very early period in the Christian era. Another Algerian church at Announa was modeled after the temple of Mars Ultor at Rome, except for its wider intercolumniation. At Ilbrim, in Nubia is one of the first known instances of a church building whose apse formed a portion and not a prolongation of the main body of the edifice, though in later forms, and especially in the east, internal apses were much in favor. In the third century basilica of Saint Reparatus at Orleansville,—the Castellum Tingitanum of the Romans—are two internal apses, the second one being probably added as the mausoleum of the bishop of that name.

A feature in the Constantinople of the imperial age was its enormous cisterns sufficient, it is said, to furnish water to 1,000,000 men for several months. All the palaces and most of the monasteries were provided with these receptacles in case of siege; for Constantinople was often the mark but seldom the prize of invading hosts, Huns, Persians, Arabs, Russians, and Turks being driven from the walls before its capture by Mohammed in 1453.

The appellation of New Rome, formerly applied to Constantinople, is now used only in church documents. Islamboul, or Stamboul, formerly Islambol, or the city of Islam, as the Turks named it, is

supposed to be a corruption of the Greek, cis tan polin, the Ottomans also adopting the crescent and star which from time immemorial was the emblem of the city and is still found on Byzantine coins and statuary.

For his church of Saint Sofia, where now stands the mosque of that name, Constantine ordered a number of silver statues which have been thus described by one of his biographers: "The Savior seated weighed 120 pounds; the twelve apostles 90 pounds each, and there were four angels, each of 120 pounds, with eyes formed of precious stones. Through a life-size golden lamb, around which were silver hinds, water issued from a font, John Baptist in silver standing guard over the group, which was probably of Roman workmanship and can hardly be classed as Christian art."

In the British museum is one of the finest specimens of fourth century carvings showing the figure of an archangel executed on the leaf of an ivory diptych. As was common with Christian sculpture, the features are faulty, the drapery displaying the best workmanship. A beautiful ivory in the South Kensington museum represents a priestess in flowing robes sprinkling incense on a burning altar.

On an ivory tablet in the sacristy of the cathedral at Salerno is portrayed the death of Ananias with Sapphira standing in front of the apostle whom she is attempting to deceive, the hand of God appearing above as a token of divine judgment. Ivory boxes adorned with reliefs were frequently used as receptacles for the host, and of these there are many specimens in churches and museums.

Shade of the Prophet, thou whose fanes,
The Christian fanes among,
Reared to the faith of Islam
In fancies light and strong,

Reared from the shores of Bosphorus
To Cairo and Tooloom,
Or where "the Pearl of Agra" shines
Beneath the southern moon,

Tell us the secret of thine art,

Thy minaret and dome,
Lost as the classic art is lost
Of Hellas or of Rome,

No mystic forms thy creed permits,
In marble, bronze, or gold:
But sculptured on thy monuments
What mystic tale is told?

Let us consider for a moment, before describing the architecture and art of Islam, the origin and influence of its faith, which, hand in hand with conquest, spread far more rapidly throughout the world than did the dominion of the Caesars or the doctrines of as the crucified Nazarene. Whether considered as the subjugation of a mighty empire, as the development and growth of a new religion, or both, the events which followed the hegira form one of the most remarkable chapters in the annals of the human race. The great conquests which history records, from the days of Cyrus to those of Napoleon, have with whom have vanished all been accomplished by powerful nations under able leaders, traces of their transient splendor; nor did even Rome, while imposing her laws on subject races, attempt to impose on them her faith. But here was an obscure and simple community, few in number, and though warlike, unskilled in the arts of war, which in less time than Rome would require for the acquisition of a single province, not only subdued the kingdoms of three continents, but welded them together into one great people, eager to promote with heart and hand the mission which Islam had undertaken.

While the Arabians traced their descent from the father of Israel, and of old worshiped only the God of Israel, they had lapsed into idolatry long before Mohammed appears on the scene. Though the religion of the Hebrews never became entirely extinct, and was later mingled with Christian elements, the Sabaean worship of the stars, which obtained in Persia and Babylonia, was common also in Yemen. Leading a nomad life amid the pathless desert, above which, in a cloudless sky, glittered the constellations of either hemisphere, and with none of the varied forms of scenery on which the eye could rest, it was but natural that the imagination of the Arab should revel in infinity, passing rapidly from one faith to another, and never finding the repose which belongs to settled and established creeds.

When gathered into cities, their religion became a trade as even today it is, the forms of worship, handed down by their forefathers, being of less importance than the fairs and feasts set forth in holy places, "the fairs of heathenism," as they were termed. Their gods were many, three hundred idols clustering around the black stone in the shrine of Kaba, presented, as was believed, to Abraham by the archangel Gabriel. Yet they cared but little for their gods, not even for Allah himself, who was supreme above all, by whom they swore their most sacred oaths and sealed their most sacred covenants. Arab deities were merely guardian spirits, revered, not for the attributes ascribed to them, but as representing the interests of certain tribes or promoting the welfare of their votaries. Hence Allah was lowest in the scale of worship, for while imposing duties on all, he granted no special favors to any. Such was the religion of Arabia before the days of Islam, a corrupt and idolatrous religion, but one that sufficed for the people and the age.

Before his marriage with the widow of a wealthy merchant, by whom he had been employed as traveling agent, Mohammed made journeys through Syria and Palestine, where probably he first received the impressions which took such deep root in his soul. Through a cousin of his wife, the prophet that was to be was brought into contact with the hanifs, a word which Sprenger interprets in his Leben und Lehre as "men who seek to purge themselves of sin." While neither a sect nor a secret society, and least of all with any thought of propagandism, they adopted monotheism in the person of Allah, rejecting idolatry less on intellectual grounds than as tending to impurity of life.

After a season of pious meditation and solitary ascetic exercises, Mohammed became subject to fits or swoons, in which, without loss of inner consciousness, he saw the visions which played so important a

part in founding the faith of Islam. It was during one of these fits, or as some have it in his natural sleep, that he received from Gabriel, as tradition relates, the divine commission bestowed upon him on Mount Hira, the archangel presenting to him a silken scroll, and bidding him repeat what was inscribed thereon: "Read in the name of thy Lord, who created man from a drop. Read, for thy Lord is the Most High, who hath taught by the pen, hath taught to men what they knew not. Nay truly man walketh in delusion, when he deems that he sufficeth for himself." Here was the first of the many inspired passages of the Koran, claimed as the source of revelations denied even to Moses and the prophets. But we need not follow further the origin of this religion of the sword which contrasted so strongly with the Christian religion of peace, remarking only that after it was firmly established, the subordinate deities were not abolished, but stripped of their divinity, reduced, that is to the rank of inferior spirits resembling somewhat the daemons of the Greeks.

To the corruption of the eastern empire both, religious and political, more than to the inherent strength of the cause or the ability of its leaders, must be attributed the dazzling conquests of the caliphs. Yet, had they been merely conquests, they must have been barren of result; for Yemen warriors, however valiant, were not numerous enough for successive campaigns or for the maintenance of a mighty empire. But the subjugated nations of Asia and Africa, each in turn, sent forth their hosts of converts fired with the fanaticism of a new and sensuous faith, until the sword and creed of Islam made themselves felt throughout the world. Within less than a century after the hegira, the domain of the Saracens extended throughout Arabia, Syria, Palestine, Persia, India southward to the Ganges, Egypt and the entire Mediterranean coast Sicily and all of Spain, except for the mountainous regions of the north.

But in none of these countries was there any such depopulation, or transplanting of races, as attended the progress of Roman domination. They retained their old inhabitants, their ancient habits and customs, with less of outward change than is commonly supposed, while as to religion the Mohammedan conquerors were far more tolerant than the Christians, often worshiping in Christian temples but reserving a portion of their space, so that prayer to Allah would mingle with the praises of Jehovah.

For a proper understanding of Saracenic architecture, it should be borne in mind that the Arabs had neither art nor culture of their own in any form, except for the poetry which from time immemorial celebrated at public gatherings the deeds and glories of their race. In the Koran art is barely mentioned, and there is not a single passage which points to the existence of definite forms of architecture, the minaret, whence later came the call to prayer, being as yet entirely unknown. Whether in the desert or on the housetop prayer was everywhere acceptable, so long as the face be turned toward Mecca at the proper time, and with due regard to forms and attitudes. It was not until the close of the seventh century that the Saracens began to build for themselves, and not until the close of the ninth that they built in original designs; for there were plenty of Christian basilicas and churches which with slight alterations by Byzantine artificers would serve for their own forms of worship. Even after the capture of Constantinople, they did not care to introduce the styles with which they had become familiar on the other side of the Bosphorus, erecting their mosques after the ecclesiastical types of which the church of Saint Sofia was the leading example. Thus the art of Islam was but a combination of heterogeneous elements fused, after many centuries, into homogeneity of style, a style which, notwithstanding countless ramifications, never entirely lost its individuality.

As with early Christian and Byzantine architecture, so with that of the Arabians, both were mainly in connection with religious requirements, while some of the finest specimens of the latter are of Byzantine workmanship. In the earlier stages of the Mohammedan dispensation there were no sacred buildings, except the sanctuary of Kaba, their only temple as Allah was their only God. It was merely a rough stone edifice, built on the site of an older temple said to have been destroyed by fire, and though famous for its sanctity, without pretension to structural design. Nevertheless, after being more than once rebuilt, its exterior form, except in certain details, is still preserved in the "Ancient House," as it is styled, of the great mosque at Mecca. After destroying the idols of this sanctuary, Islam consecrated many spots in honor of the patriarchs whose faith, as they believed, was reproduced in their own. Between the door and the sacred stone on which Abraham stood while building the enclosure, was the place for offering prayer with outstretched hands, another, named the Hijr, marble lined and paved with mosaics, surrounding the slabs which marked the graves of Ishmael and Hagar. But neither tradition nor rudeness of external aspect interfered with later decorations, the caliphs covering the sides with figured brocades, and the sultans sending with each pilgrim caravan a kiswa, or veil, richly embroidered with inscriptions from the Koran. The roof was concealed by silken drapery; the silver plating of the walls was finished in gold; the floors were of colored marble, and between pillars of teak were suspended lamps of silver.

The mansions of the wealthy were thickly clustered around the Kaba, and with the constantly increasing hosts of pilgrims which betokened the spread of Islam, their dwellings were gradually cleared away to make room for the great mosque and its enclosing walls, nearly a furlong in length, almost as much in width, and pierced by a score of arched gateways. Though the work of many hands, the temple in its present form was founded by the caliph El Mahdi, of the house of Abbas, the Mohammedan Messiah, whose advent, long expected, was to fill the world with righteousness. Enormous were the sums expended by this caliph in importing from Egypt and Syria their costly Roman columns, of which but a few remain, the hundreds of pillars that have taken their place being of many designs and dates. As an architectural composition, the building is in no way remarkable, though of special interest as the goal of pilgrimage and the most sacred of Moslem fanes.

A more graceful and imposing edifice is the mosque of the Prophet at Medina, originally a low brick building roofed with branches of palm, adjoining which were the homes of Mohammed and his women. Early in the eighth century, after previous enlargements, it was entirely reconstructed in the most elaborate style of Byzantine architecture, the plan including the burial place of Mohammed and the pulpit from which he preached. As extended by El Mahdi and later described in the chronicles of Ibn Jubair, the interior was richly decorated with mosaic arabesques and the outer walls with parquetry, gilded capitals crowning the marble pillars of the porticos. After two partial destructions by fire, it was restored, near the close of the fifteenth century, almost as now it stands, with stately minarets and ponderous dome above the prophet's tomb. Though surrounded with a spacious court, crowded dwellings obstruct the view except from the principal gate, inlaid with marbles and adorned with inscriptions lettered in gold. Thence, along the southern wall, a colonnade with many rows of pillars leads to the doorless but curtained chamber where are the sacred graves of Mohammed, Abubekr, his father-in-law, and the caliph Omar, whom Islam reveres as a saint. A smaller chamber represents the mausoleum of Fatima, both being surrounded with an iron railing, in front of which is a portico paved in marble and mosaics, the effect of which is marred by tawdry depictions in imitation of the garden of Paradise.

The mosque of the Prophet is of Egyptian design, but inferior in style to the monuments reared by Islam in the land of the Pharaohs, where in solid freestone structures with massive columniation, Muslim architecture attained its highest development. Here also appears for the first time the pointed arch, introduced into Europe after the earlier crusades, though appearing in some rude forms in ancient Gothic cathedrals. In the mosque of Amru, erected about the middle of the seventh century, there is no attempt at originality; but in that of Ibn Tulun, or Tooloon as it is commonly termed, completed in 879, is one of the oldest specimens of a purely Saracenic edifice, yet designed, as were many others, by Christian architects. Of magnificent proportions is the arcaded court with its battlemented walls and stately colonnades, the minaret pointing skyward in telescopic form and near it a heavy cumbersome dome. The arches of the mosque are pointed and rest on substantial piers, no pillars being used except as corner shafts, the general outlines suggesting the Norman style, and with a certain dignity of expression, notwithstanding occasional clumsiness.

More elegant in detail is the mosque Al Azhar, or "the splendid," built near the close of the tenth century and now the seat of a Mohammedan university. In that which one of the sultans reared in 1149, outside the walls of Cairo, is a distinct transition in style, a feature being the sepulchral chambers which formed a part of the edifice, in imitation of ancient Egyptian tomb-builders.

But the most remarkable of Moslem fanes, and in some respects differing from all the rest, is the cruciform mosque of Sultan Hassan, finished in 1356 at a cost of $3,000,000. In aspect it is remarkably impressive, rising in nine stories to a height of more than 100 feet, solid as a fortress and with massive and boldly projecting cornice. In place of colonnades, the interior court has on each of its faces a large vaulted niche, the one looking toward Mecca 70 feet in width and 90 in depth and height. Behind it is the mausoleum of the founder, surmounted by a dome with richly carved pendentives and flanked with lofty minarets, one of which is said to be the tallest in the world. The mosques of El Moyed and Kaid Bey, both belonging to the fifteenth century, are graceful examples of Arabian architecture; but in those of later periods there is little worthy of note, except for the waste of costly materials on florid and incongruous designs.

In the older mosques of Cairo and its splendid mausolea, their lofty, gilded domes and fanciful tracery in arabesque, is one of the two distinctive now rapidly falling into decay, forms into which Muslim architecture was finally developed, the other being the Moorish in Spain. The Arabian style is extremely simple and almost uniform in plan, consisting of the arcaded court already described, with a prayer niche facing toward Mecca, near it a pulpit, in the center a fountain, and at one or more of the corners a minaret, the only important variations being in the size of the structure and the richness of the columnar decoration. Rising from a square base, the minaret gradually assumed an octagonal or circular shape, with corbelled galleries, and profusely adorned in arabesque or floral designs, the domes having similar decorations and in other respects differing widely from those of western design. As a protection against heat, windows and other openings were small, except the principal doorway, which was deeply recessed, but in such elaborate workmanship that the entrance itself was no larger than its purpose required.

In Persia, which about the middle of the seventh century yielded to the arms of Omar, the surviving monuments of Islam belong to later eras and are modified with Persian forms. Of the ancient glories of Baghdad, where the caliphs held court in the climax of oriental magnificence, the only remains are a few architectural fragments, the tomb of Zobeide, wife of Haroun al Raschid, being the one best

preserved, though this is of doubtful origin, resembling closely the Jaina temples of Hindostan. Of fifteenth century workmanship is the mosque of Tabriz, in whose ruins may still be partially traced its elaborate decorative scheme. It was a domical structure surrounded with vaulted courts, adorned with floral designs in white and green on a ground of blue, interwoven with arabesques and inscriptions in letters of gold. Ghazan Khan was its artificer, his successor. Mohammed Khodabendar, founding the city of Sultanich and erecting there the splendid mausoleum which was its principal ornament. Especially beautiful is its dome, worked into graceful curves from the main octagonal structure by a series of brackets, the entire composition forming one of the most elegant specimens of Moslem architecture.

As related in a former chapter, Shah Abbas made of Ispahan, his capital, one of the finest cities of the orient. Chief among his works was the great mosque named Mesjid-i-Shah, entered from the Maidan or bazaar a rectangular area nearly half a mile in length, surrounded with vaulted and two-storied arcades with pointed arches, and in the center of each face a lofty portal flanked by slender minarets.

The central portion of the mosque is surmounted by a double dome, 165 feet in height, corresponding to that of the minarets. On three sides are courtyards containing fountains and basins for the ablutions of intending worshipers, and richly ornamented in the polychromic treatment of the Persians. In design the temple is inferior to others of its type, but in mass and in wealth of decorations it stands almost unrivaled, even in its premature decay, as an example of the gorgeous, if somewhat barbaric splendor of the age.

To Muslim temples and palaces in India reference has been made in connection with the architecture of Hindustan, where Hindu, Saracenic, and modern styles are often combined in edifices which do not properly belong to any of these forms. Passing to Syria and Palestine may first be mentioned the great mosque at Damascus, reared on the site of the Syrian temple which Theodosius converted into a church about the close of the fourth century. After the Arabian conquest, the church was long used in common by Christians and the former worshiping on the west side of the partition which divided it, and the latter on the east. By the caliph Walid it was converted to its later use, though the several portions which belong to heathen, Christian, and Saracenic forms have never been clearly ascertained. With the additions made during its twelve or thirteen centuries of existence, the outer dimensions are 510 by 320 feet; but except for size, it is not remarkable as an architectural composition. The workmanship was of the poorest, so poor that the pillars of the court have only been preserved by supporting piers of masonry, while coats of plaster and whitewash cover the walls and decorations. Yet this is one of the most sacred of Muslim sanctuaries and one of the foremost in historic interest.

By the treaty which gave to him possession of Jerusalem in the fifteenth year of the hegira, that is to say in 637 AD, the caliph Omar guaranteed to the Christians protection for person and property, with the free exercise of all religious rights, subject to the condition that Mohammedans be admitted into their sanctuaries. It was also stipulated that a convenient site be granted him on which to rear a monument to Islam, and for the purpose was selected that of the ancient Hebrew temple, held by the Christian accursed and by the Mussulman sacred; for here it was that Mohammed landed after his miraculous nocturnal flight. On this spot Omar erected a small and simple mosque, little more than a plain, vaulted cell; for, though a caliph, he was vowed to poverty and averse to all ostentation.

About half a century later, Abd el Malek, caliph of Damascus, attempted to make of Jerusalem the goal of pilgrimage in place of Mecca, thus carrying out what at one time had been the intention of the

prophet. Hence the building of the great mosque of El Aksah, in which was probably included a part of Omar's shrine. Originally it was a rude wooden edifice, and though with the features of various schools from the Byzantine downward, its later magnificence is mainly ascribed to the caliph.

In some respects, and especially in its seven aisles, it resembles a basilica, though the porch, which is a subsequent addition, is without the atrium common both to the Moslem and Christian forms at this period. By a monk who saw it soon after its completion, it is described as a square building with accommodation for 3,000 worshippers, the Arab historian Meje-ed-Deen making mention of 45 columns, most of them of marble and connected by horizontal beams, as is still their peculiarity. But in this edifice, occupied during the crusades by the knights who thence took the name of Templars, are many architectural problems which cannot here be solved.

It was probably from northern Africa that Saracenic or Moorish architecture was first introduced into Spain, though in forms so distinct and individual that their origin cannot be clearly traced. Of the monuments of the former country little is known, religious bigotry and the indifference of travelers and explorers leaving them still as works to be deciphered by future ages. Even of the mosque at Kairwan, long the capital of the African provinces, it can only be said that it was built during the first century of the hegira, chiefly from Roman remains, and that in external forms it resembles somewhat those of Cairo and the earlier mosques of Tunis. To the thirteenth century of our era belongs the many domed and cloistered mosque in the center of Tunis, as also the one reared by its Hafsite prince Abu Zakariya; but these, as all others, are open only to Mohammedans. Of later date is a stately minaret, considered one of the finest of its class, but less for symmetry of proportion than as showing that Arabic architects knew how to find expression in grandeur as well as in beauty of design.

From the opening decades of the eighth century until near the close of the fifteenth, Spain was more or less under Moslem domination. During all this period the Moors, while engaged in conquests, found time to extend their own form of art, almost to the exclusion of the Gothic with which it was concurrent in style. Even in districts where their rule was brief, and in those which were beyond their domain, are still found in Gothic buildings traces of Saracenic architecture, in combinations existing nowhere else in Europe. While this was a brilliant period, it is not to the monuments of the Spanish peninsula, not even to the Alhambra and Alcazar, with all their wealth of decoration, that we must look for the highest and purest form of the arts which Islam inspired.

Late in the eighth century Cordoba became the capital of Moorish Spain, and here, on the site of a Roman temple. Abdurrahman I founded the mosque which, completed by his son, though with many later additions and alterations, was the earliest of Saracenic monuments. As it stood in the reign of El Mansoor, about the year 1000, the exterior was in the shape of a parallelogram, enclosing an area of 158,000 square feet, or larger than that of any Christian temple with the single exception of St. Peter's. It was, however, deficient in elevation, the distance from roof to ceiling being less than 30 feet, and in other respects the design was faulty. The facades, flanked with buttress towers, were plain even to baldness; the aisles were all of the same width, and the low antique columns superimposed with stone pillars and with double arches, to increase the height. But in many respects the decorative scheme was in the richest style of Arabic art. The columns were 1,200 in number, and of these more than half still remain in the magnificent cathedral into which the mosque was converted, one of the finest specimens of Moorish architecture adopted to Christian uses.

In common with the splendid mosaics of marble, porphyry, and jasper combined in matchless forms, they were the spoils of many cities, of Nismes, of Seville, Menda, Byzantium.,while some it is said, came from the ruins of ancient Carthage. The cathedral, with its chapels, has of course destroyed the original effect, and grand though it be, the aspect is less imposing than when, through a score of bronze gateways, a multitude of worshippers thronged into this labyrinth of aisles and colonnades, over which thousands of lamps filled with perfumed oil shed a soft and fragrant light. "You have built here," said Charles V to the church authorities, "what could have been built as well anywhere else, and you have destroyed what was unique in the world."

In Seville was reared, toward the end of the twelfth century, one of the most stately of Moorish mosques, still partially preserved in the cathedral, its minaret, the Giralda as it is called, ranking as the finest specimen of its class. In contrast with the slender polygonal shape usually adopted in the East, it rose in a square mass to a height of 185 feet, a belfry of sixteenth century workmanship taking the place of the original superstructure, reproduced in a later restoration but not in its present form. The walls of the tower are relieved with panels ornamented with textured patterns rising from pilasters and covering most of the surface. Between the panels are windows in keeping with the plan, and in sufficient number, without interfering with the solidity of the structural design.

But the Alcazar was the glory of Seville, and indeed of Spain, a monument probably as splendid as the Alhambra itself, though altered in parts from its original form almost beyond recognition. Begun near the close and thus coeval with the Giralda, it was surrounded with castellated walls of which the of the twelfth century, Torre del Oro is the principal remnant. While additions and alterations by Pedro the Cruel, by Charles V and others partially effaced its Moorish characteristics, later restorations show much of its former aspect, especially in the hall of ambassadors, the chapel of Isabella, and the Patio de las Munecas. Yet as these are only restorations, they are of little historic value, especially as their style is largely repeated in the structures of the Alhambra.

On a precipitous rock overlooking Granada, the last stronghold of the Moors, were reared in the thirteenth and fourteenth centuries the mighty citadel and palace of the Alhambra. as the fortress and residence of Moorish sovereigns. While partially destroyed after the Spanish conquest, sufficient has been preserved from which to reproduce this architectural dream, modern restorations replacing many of the features which Christian vandalism had effaced. Enclosing an area of 35 acres was the massive wall with many towers which long resisted the arms of Spain, the principal buildings bordering on spacious and pillared courts with broadly projecting roofs, where wooded lawns and sweet-scented gardens, sparkling fountains and waterfalls afforded a cool and shaded retreat.

Entering through the gate of Pomegranates, and passing thence by a steep ascent to the sculptured archway named the gate of justice,—formerly an outwork as well as an open-air court—the visitor enters through a narrow corridor, the Plaza de los Algibes, or place of the Cisterns, so-called from the reservoirs beneath.

On one side are the ruins of the ancient fortress of the Moors, and near them the watchtower where first the Christian flag was hoisted after their expulsion. The view from this point is of surpassing loveliness. Beneath, “like a pearl set round with emerald,” is the city of a hundred churches, above which tasteful villas cluster amid the verdant foliage of overhanging heights, lo the right is the palace, severely plain in external aspect, as was the custom in Arabic architecture, with a view to give further accentuation to the splendors of the interior. Everywhere in these spacious halls and courts is

betokened the delicate taste of this famous period in Moorish art, colonnades of richly colored marbles, ceilings, and partitions fretted, gilded, and colored in light and graceful designs, filigree work transparent as gossamer, and mosaics and arabesques of finished workmanship, all contributing to an effect which surpassed even the dreams of oriental dreamers, or the fabled stories of the Arabian Nights.

Opposite the entrance of the reception-room, known as the hall of Ambassadors, stood the throne of the sultan of Granada, the domed ceiling of this chamber showing beautiful inlaid work in polychromic treatment and in forms while the walls were adorned with delicate stuccoes resembling the vault of the sky, surrounding Moorish escutcheons. Adjoining it is the court of Albirca, otherwise named that of the Myrtles, from the trees which border its sides, or of the Pond, from the pool, filled with gold fish, which stands in the center of the marble pavement. On two sides are arcades with galleries above, the one on the southern face supported by marble columns, and with windows beautifully arched in slender and graceful forms. To the hall of the Abencerrages, as the legend reads, Boabdil invited the members of that family whom he feasted and massacred. The roof, with its arched supporting columns and is handsomely decorated, at the foot of its spacious dome are trellised windows. An elegant apartment is the hall of the Two Sisters, which takes its name from a pair of slabs of pure white marble, forming a part of the pavement. The walls are adorned with geometric and other figures pleasing in effect; but in questionable taste is the pattern of the roof, fashioned of thousands of pieces in imitation of natural stalactites.

But the gem of the entire composition, and one of the most perfect specimens of Moorish architecture, is the court of the Lions, so called from the somewhat tame looking animals in marble which support a handsome fountain and basin of alabaster. The court is oblong in shape, 115 feet in length and 65 in width, pavilions surmounted with cupolas rising from either end, and a low encircling gallery resting on six-score marble columns of stainless white. The columnar decoration is remarkable chiefly for the gracefully molded capitals, adorned with filigree work and with frondal and floral designs, the grouping and alignment being also skillfully treated, though in the shafts themselves there is nothing to commend, for they resemble rather such as are used for engineering than for artistic purposes. Finally it may be said that, except for a few minor defects, it would seem impossible to plan a group of structures better adapted to the luxurious habits and tastes of a people who made of luxury an art as well as a source of enjoyment.

In most of the larger cities and towns that passed under Moslem domination are traces of Moorish art, and so it is not only in Spain but in all the lands whither the followers of Mohammed carried the Koran and the sword. As their monuments were numbered by thousands, it is impossible to describe them within the compass of a single chapter; nor is further description necessary, for in those which have already been mentioned are included the leading forms of Saracenic architecture. It remains only to refer briefly to the temples of Islam in the present capital of the Ottoman Empire, in whose civic and domestic architecture there is nothing that need detain us; since among the mansions of the wealthy are few but wooden structures, and even the palace of the sultan, for many centuries the abode of Byzantine or Turkish sovereigns, is remarkable only for its historic associations. Moreover, Constantinople is frequently swept by flames, which visit impartially every quarter of the city; hence in relating what exists today we may relate that which will not exist tomorrow.

It was doubtless a misfortune for Spain and for Europe that the Moors were driven from the land which they had so long adorned with their sciences and arts of all the races that acknowledged the prophet, they were the most enlightened and the least bigoted, far surpassing in these respects the Christians who were first their servants and then their masters and oppressors. This we may read even in their architectural designs, so graceful in outline, so free from the austerity of other Saracenic forms, the most ornate, if the most ephemeral, of the many styles that came before or after.

Before the conquest of Granada, another and more serious misfortune had befallen the Christian world, in the subjugation of its fairest city by one of the most barbarous of the barbaric tribes which spread as the scourge of the human race from the plateaus of Central Asia. Two centuries or more were required for the Turks to force their way westward as far as Constantinople, whose capture, with the events that followed, caused the fate of Europe to tremble in the balance. Here as elsewhere in the domains of Islam, the victors adopted with certain modifications the architectural forms of the vanquished, never attempting to enforce on their subjects the models peculiar to themselves. In this at least they showed more wisdom than the Aryan nations, which insisted on the use of materials and designs ill suited to the climatic and other requirements of those whom they held in subjection.

The earlier mosques of Constantinople, as we have seen, were merely Christian churches or basilicas adapted to Muslim worship, chief among them being that of Saint Sofia, whose splendors have been related in connection with Byzantine architecture. In the various styles adopted by the Turks, even unto the present day, the most remarkable feature is the repeated imitation of this gem of Christian art, plain in exterior forms, but with a beauty and richness of internal decoration that has never been surpassed in the temples of all the ages. By the Christians themselves it was little appreciated, and from their hands, so far as is known, there is not a single reproduction; but the Turks were not slow to observe its merits, and adopting the forms which it suggested, preserved their designs from the feebleness which prevailed in western Europe. Of more than a hundred mosques erected since the Ottoman pitched his camp on the northern shore of the Bosphorus, all are more or less modeled after Saint Sofia; but while there were many modifications and some improvements, none have approached it in wealth and beauty of embellishment. If the fanes of Cairo excel in dignity, it is here that we find the poetry of art.

By Mohammed II, to whom the last of the Constantines yielded his city and his life, at least seven Christian churches were appropriated for Muslim worship, and as many mosques were erected some of imposing dimensions. Chief among the latter was the one that, still bearing his name, crowns the loftiest of the seven hills on which the metropolis is built, the magnificent funeral chapel of the emperors, already in part destroyed by earthquakes, furnishing materials and site for what was intended to be the most splendid temple in the empire. How far this intention was carried into effect can never be determined; for the repairs made necessary by the great seismic disturbance of 1763 were almost equivalent to a reconstruction, and in its present outlines there are few indications of the original form. It may, however, be stated that in common with others, it was largely a reproduction of the church of Saint Sofia. A more sacred edifice was the mosque of Eyoub, the standard-bearer of the prophet; but of this even less is known, while that which Selim I completed, early in the sixteenth century, is remarkable only for the huge proportions of its dome.

The most stately temple on the shore of the Bosphorus, and one of the grandest in the Mohammedan world, is the mosque completed by Suliman the Magnificent in 1555. It is still but little impaired, and

except for a few slight alterations in detail stands as for centuries it has stood, the highest type of its class, every portion revealing the purpose for which it was intended.

Almost in the form of a square with a side of more than 200 feet, the building has in front the usual arcaded court and fountains, the mausoleum of its founder in marbles of various hue standing in the gardens adjacent. The dome is well proportioned; about 160 feet in height and half as much in diameter the windows, beneath its arches set between pillars of porphyry imported from Egypt. Though in proportion and disposition of parts surpassing its model, the church of Saint Sofia, the interior effect is far inferior; for here are none of the gorgeous mosaics which filled the church with reflected light; nor is the poverty of mediaeval decoration compensated by the presence of modern vulgarity, all too common in Mussulman places of worship.

Another imperial mosque, but one in whose design there is little to commend, is that which the sultan Ahmed reared in the opening years of the seventeenth century. Somewhat larger than the temple of Suliman, in artistic effect it is comparatively feeble, the geometrical precision of outline and the lack of architectural emphasis imparting a severely mechanical and prosaic aspect. Each wall is the same, and the same is the number and spacing of the windows, all glazed in identical patterns, while the free use of whitewash above the marble wainscoting adds the subordinate to the barn-like appearance of the interior. The domical treatment is the most pleasing feature, domes and semi-domes, arranged in pyramidal shape and flanked with soaring minarets, relieving somewhat the monotony of plan. For another century at least the Turks adhered to the forms above described, and even as late as 1755 Osman III erected a mosque which, except in a few of its details, might belong to the age of Suliman. But we need go no further; for the nearer we approach to recent architecture the more feeble it becomes in style, the workmanship of the present age, in slavish imitation of European neighbors, having nothing more to do with Saracenic art than had the Romanesque with the Roman or the Hellenistic with the classic art of Greece.

To Islam, as we have seen, graven or painted images were forbidden, and hence her art was confined almost entirely to architecture, though in mosaic work, in carvings in ivory and wood, and in many other forms of handicraft, they had few superiors either in ancient or modern times. Of their paintings the best of the few remaining specimens were on the vaulted roof of the court of Justice in the Alhambra, representing the figures of sovereigns and scenes from the age of chivalry; but while Moorish in theme, these were probably by Italian artists, resembling somewhat the compositions of the earlier Florentine school.

The term arabesque is of wide application, and frequently but improperly used in reference to the cinque-cento ornamentation developed, not from the Arabic, but from Greek and Latin designs, as in Roman palaces or in the ancient mansions of Pompeii. Grotesque it should rather be called, and so was named when first brought to light in the subterranean chambers or grottos of the imperial city, to be later reproduced by the disciples of Raphael, whose workmanship may still be seen in the loggia of the Vatican. By Byzantine Greeks, under Muslim patronage, were produced during the earlier period of Mohammedan domination the rich forms of decorative art which pertain to Saracenic architecture. Since figures, brute or human, were forbidden, as were other natural forms, the artist was closely restricted in choice of subjects, though contriving to work into his patterns the hidden emblems of his faith. If the cross was not there, neither was the crescent, for this was a Byzantine symbol, and only after the capture of Constantinople became a Mohammedan device, the crescent and cross never

appearing in antagonism until the fifteenth Century. In Moorish carvings, traceries, and plastic ornaments, especially those in the Alhambra, are some of the finest examples of purely Saracenic workmanship; for the Moors were the most skilful of craftsmen, and in Spain there was less restriction as to themes.

Especially beautiful were their floral designs and their foliation disguised in stucco inter facings and in reliefs richly colored and gilded. In Hindustan are noble specimens of the later Mohammedan style, as in the mosque at Delhi, the pearl mosques at Agra, and the Taj-Mahal, through whose domed arcades, perforated with trellis-work, the tempered sunlight falls on flower mosaics fashioned in precious stones.

The words Saracens and Saracenic, commonly used in reference to the Arabs and their architecture were applied in Greek and Roman forms to the nomad tribes of the desert, and later adopted by Islam, whose followers traced their origin to Sarah, the wife of Abraham. A common derivation is from sharki, or eastern, but a more probable one, as suggested by Sprenger, is shoraka, that is to say, allies.

As to the Kaba, where is now the "Ancient House" in the great mosque at Mecca, there is a Mohammedan legend that, in its original form, it was built by Abraham and Ishmael for a temple of monotheism, on plans prescribed by divine revelation. Though long devoted to idol worship, after the suppression of idolatry it was declared by Mohammed the most sacred of Islam's sanctuaries. Its famous black stone, already referred to, was considered as the palladium of the holy city, and when carried away by the Carmathians during the pilgrimage season of 930, an enormous sum was paid for its ransom. The stone, which was supposed to have come from on high, is probably of meteoric origin and only a few inches in length, the pieces into which it was broken by fire in the siege of 683 being joined together by silver bands. Among the many fetiches which stood in the enclosure of Kaba, this was the one most venerated, no pilgrim being content to set his face homeward without having touched it with his lips.

Attached to the enclosing wall of the mosque at Medina was a casket supposed to lie opposite the head of Mohammed, a silver nail showing the point to which his body faced. The tradition of a coffin suspended by magnets is a European invention and entirely unknown to the Muslim world.

The pointed arch, as to the origin of which there is much difference of opinion, probably appeared for the first time in the wall-niches of a small structure known as the Kilometer, erected early in the eighth century on an island near the old city of Cairo. The invention has been claimed by many European nations, though this is disproved by its almost simultaneous appearance in the more civilized countries of Europe after the earlier crusades. If found in rude shapes, as I have said, before this date, in ancient Gothic architecture, it was not in the form of the lancet arch, which was the prototype of the style. Nevertheless there is something nearly approaching to it in the domed chambers of ancient oriental nations.

Though for several centuries the Saracens were masters of Sicily, there are few remains of that period, chief among them being the Zisa, a country mansion near Palermo, which, notwithstanding modern restorations, is distinctly Arabic in plan. Especially does this appear in the handsome panelings of the walls, the frieze with its elaborate mosaics, and the marble columns of the portico, calling to mind the mosque of Tooloon at Cairo.

Many of the mosques in the eastern quarter of Cairo are falling into ruins, and serve only as the haunts of beggars. The splendid mausolea, commonly supposed to be the tombs of the caliphs were in fact erected by one of the Mameluke tribes extirpated by Mehemet Ali.

The famous "vase of the Alhambra", probably fashioned about the year 1320, is a beautiful specimen of Moorish art. It is somewhat over four feet, the enameling being chiefly in blue and gold on a ground of white.

Beyond a ravine which separates it from the Alhambra is the so-called garden of the Architect, at first probably an outwork of the fortress and later the summer residence of the sultans of Granada. Of the many reproductions of the Alhambra, one of the best is in the court of that name in the Crystal palace at Sydenham, a few miles from London.

Art and Architecture: The Romanesque and the Gothic

In so progressive an art as architecture it is always very difficult, sometimes impossible, to fix the exact date when one style ends and another begins. In an art so preeminently ecclesiastical as architecture was in the middle ages, it will probably be safer to look to the annals of the church rather than to those of the state for the lime when the Romanesque expired, giving birth, Phoenix-like, to the Gothic. Viewed from this point there can be little doubt that the reign of Gregory the Great—from 590 to 603—must be regarded as that in which the Latin language and the Roman style of architecture both ceased to be generally or even commonly employed. After this date we wander on through five centuries of tentative efforts to form a new style, and in the age of another Gregory—the VII—we find at last the Gothic style emancipated from former traditions and marching steadily forward with well defined aim.

—Ferfusson's History of Architecture.

In the nomenclature of art, the terms Romanesque and Gothic, in common with many others, been variously interpreted, and even at the present day there is almost as much difference of opinion in the definitions as in the criticisms on various schools and styles. While by the Romanesque, as by the Hellenistic, are usually understood the forms and methods which followed the classic era, not only in Italy and Greece but throughout the Roman and Graeco-Roman world, there were almost as many subdivisions as there were provinces subject to the later empire. Though all were more or less founded on Roman models, in civilized countries may be noted a certain if that were individuality, tending sometimes to improvement and sometimes to deformity even worse, possible, than in the later art of the imperial city. In constructive skill, however, progress was unmistakable; for in this respect classic architecture was deficient and notwithstanding all that has been said about the stability of Roman edifices there are cathedral and other medieval buildings now in existence which far excel them in the builders craft.

The year 1000, as we have seen, was a critical one in the history of the world. It was the last, as was believed, of its existence, and men took little interest in its affairs. Few wills were made, since earthly goods would soon be a thing of the past, and what signified a few pieces of gold to those who were soon to dwell in a city whose streets were paved with gold? When the mystic year had passed, an impulse was given to the builder's art such as had never before been felt, designs and details being developed into the new style founded on Roman precedents but with many variations due to geographical and political environment. It was mainly in ecclesiastical structures that architecture found expression, everything centered in the church, all arts and sciences, all culture in whatever form. Under its protection settlements were established, producing in time new commonwealths where industry and ability were passports to success; but these belonged chiefly to a later period than that which we will now consider, ending as it does with the thirteenth century and thus contemporary with the later Byzantine era. While the opening of the eleventh century is usually accepted as the termination of that era, in the provinces of the Byzantine empire architectural designs were but little changed until its overthrow by the Turks, who themselves borrowed largely from Christian models, even Russia being indebted to Byzantine influences for some of the finest of her existing monuments.

Among the principal features of the Romanesque is the substitution of massive piers and vaulted ceilings of brick or stone for the columns and flat timber roofs of the basilica, thus permitting the increase of dimensions demanded by the growth of Christian congregations and communities.

As cities grew in wealth and population, no expense was spared on their churches which served not only as places of worship, but for political and other gatherings, as homes of the drama for the presentation of passion and miracle plays, as fortresses and storehouses for treasure. While the nave and aisles of the basilica were retained, the conjunction of walls and roofs in continuous curves, and with unity and symmetry of design, was far superior to the rows of pillars flanked in stiff rigidity of outline the halls of more ancient temples. Moreover, the supply of columns furnished by the ruined monuments of the Roman world was becoming exhausted, and as a substitute came the vaulted arch with its supporting piers, at first used only for the side aisles, then for the naves, and finally adopted in the larger cathedrals reared toward the close of the medieval ages.

A further reason for the use of vaulted ceilings was their stability and non-inflammable materials, the frequent conflagrations which destroyed the wooden-roofed basilicas hastening an innovation which was also in harmony with public taste. The transept, which divided the nave from the choir and gave

to the building the shape of a cross, was often built in strongly projecting lines, this form being used not only with symbolic intent but for the enlargement of dimensions and for architectural effect. At the point of intersection a dome was erected, usually with pointed roof, the vaultings being also protected by gabled roofs, while double apses were not infrequent. Above the main facade were massive towers sometimes in several stories, ornamented with friezes and mock-arcades, gradually developed from a square substructure to an octagonal shape, and with conical, or pointed apex. Though an adaptation of the Byzantine campanile and used for similar purposes, the tower also served as a place of refuge or resistance and for the storage of valuables, but chiefly as an expression of civic pride. Borrowed also from Byzantine models was the arcaded cornice decoration beneath the roof lines or at the stages of the towers, pilasters of masonry strengthening and protruding from the walls, and arched columnar galleries extending around the upper portions of the exterior. Such, likewise, are the main characteristic features of the modern Romanesque with which, however, we are not at present concerned.

In Italy, where the supply of columns was longer available than in other lands, the colonnades and timber roofs of the basilica appear in what may be termed the Italian Romanesque, piers, vaultings, and towers being later adopted and with greater elaboration of decorative scheme. In other forms, as in Norman and Lombard, which are largely modifications of the Romanesque, there was also much variety of treatment, often in combinations that can be better described in a general outline of medieval architecture. Beginning with the eleventh century, came a period in which there was no such uniformity of design as existed in the classic age, or in the early Christian and Byzantine eras. To the builder and artisan was allowed a certain freedom of choice, even in the different parts of a single edifice, thus presenting a ceaseless variety of outline in various orders and often in no order of architecture. Regularity of plan was not only neglected as unnecessary but avoided as undesirable, with the result that, especially in ornamental details, the grotesque is strangely blended with the picturesque.

Especially in the towers is noticed this diversity of shape, the upper portion being sometimes slender and sometimes squat, now richly adorned and again without trace of ornamentation. As a rule, however, cathedrals and churches were freely decorated, usually in forms representing vegetable life, capitals and cornices being overspread with leaves and flowers, at first in imitation of Corinthian designs and then in the greater profusion demanded by northern tastes. On friezes and on the framework of doors were knotted, undulating, and checker-work patterns, with which were combined, in vigorous profile, human, animal, and monstrous figures, some of symbolic import but for the most part the mere creations of fancy, masterly compositions appearing side by side with the rudest of workmanship. Yet in plastic art the Romanesque was far superior to the Arabic, showing greater freedom of treatment and a juster adaptation to its legitimate use than appears on the monuments of Islam.

Though with many defects, there was also much to commend in the ecclesiastical architecture of this period, and especially in that of the Germanic races, whose art was inspired with the breath of their national life. The solemnity of church and cathedral edifices, with their air of repose and seclusion from the world, was further increased by the dim light of stained-glass windows falling on mural and ceiling paintings of the Redeemer and his elect. Christ, enthroned on a rainbow, and holding forth the open book of life, was the usual subject portrayed in the apse, while apostles and saints, with scenes from old testament history, were also freely represented in figures executed in strong, rich colors on a

ground of blue. In connection with many of the churches were monastic institutions, abbeys, encircled with turreted walls, presenting the appearance of fortified medieval towns, and resembling castles in strength and massiveness of outline.

In what is known as the Transition style, between the Romanesque and Gothic, beginning about the middle of the twelfth century and ending toward the close of the thirteenth, are some of the finest specimens of medieval architecture. This was a period when men were yearning for that which was beautiful and elegant in whatever shape, since the age of self-abnegation, more gloomy even than that of the puritans, had given way to the age of chivalry, putting an end to the rigid domination of the monastic system, in art, as in every phase of external life.

Cities were increasing in wealth; commerce was bringing to the West not only the riches but the culture of the East, while crusaders made Europe acquainted with the delicate workmanship and striking combinations of oriental artificers. Hence we find in the later stages of the Romanesque its richest and also its most fantastic expression, with a marvelous productive power and an infinite variety of forms and tendencies peculiar to itself. But the development of this favorite and still existing style of architecture will be better understood from a description of some of its leading examples.

In the Rhine country are the finest and most numerous specimens of the earlier Romanesque; for here it was that the flat-roofed basilica was first superseded by the new order of architecture. While earlier examples might be given, the cathedral of Maintz, or Mayence, completed in 1009, is one of the most remarkable, though most of the original structure has been destroyed by fire, the present edifice, in which are many Gothic details dating chiefly from the twelfth to the fourteenth centuries, but with recent restorations. Still remaining are the apse, the two round towers, and the portals in the eastern section of the ancient edifice, 400 feet in length, and in grandeur surpassing all other monuments of its class. Of the Transition style, whether as to design or decoration, there are few more striking instances than in its beautifully finished western choir and transept, above which are the loftiest of its six towers, more than 300 feet in height.

Of special interest for its eventful history, and as one of the noblest expressions of the earlier Romanesque is the cathedral of Spires, founded in 1030 by Conrad II and finished by his successors. It is remarkable also as the first basilica built originally with vaulted roof, and as now it stands, of such solid workmanship that the supporting masonry occupies one-fifth of its 60,000 square feet of area. After the conflagration of 1689, when the armies of Louis XIV laid waste the Palatinate, only the walls and towers were left standing, his soldiers even scattering the ashes of German emperors interred beneath the choir. Restored in the eighteenth century, and again desecrated by the French, its final renovation was completed in 1853 by King Louis of Bavaria, the fresco paintings ranking among the most gorgeous specimens of decorative art.

The nave, more than 100 feet high and 45 between the piers, is perhaps the most striking feature, though in the lofty domes and towers and in the effective grouping of masses is a simple grandeur which gives value to dimensions rarely attempted in the present age. Says an authority on Rhenish architecture: "Externally, the body of the church has no ornament but its small window openings and the galleries that extend around all the principal divisions. But the bold square towers and central dome group pleasingly together, and rising far above the low roofs of the half-depopulated town at its feet, impress the spectator with admiration at the boldness of the design and the skill with which it

has been executed. Taken altogether this noble building proves that the German architects at that time had actually produced a great and original style, and that had they persevered, they must have succeeded in perfecting it; but they abandoned their task before it was half completed.“

The third of the three typical buildings of this era and country, and not the least imposing in dignified simplicity of outline is the cathedral of Worms, in which the original design has been mainly preserved, though only a small portion of the present structure belongs to the date of its consecration in 1110. Nothing could be simpler or more appropriate to the external design than the four circular towers and the domes that further break the skyline; nor is there anything objectionable in the columnar treatment of the flanked buttresses and the moldings suggestive of Gothic art. If the decorations of the older section are somewhat crude in workmanship, this is more than compensated by the thirteenth century choir and the elaborate fourteenth century portal. The dimensions are also remarkable, the total length being nearly 500 feet and the choir 160 feet in height.

By Helena, mother of Constantine, was reared, as legend relates, the basilica which in the eleventh and twelfth centuries was converted by Archbishop Poppo and his successors into the cathedral of Treves. Finding the original structure almost in ruins, the worthy prelate covered its Roman columns with masonry, thus turning them into piers; then placing a roof over the atrium and building an apse at the western extremity, he made of it a German church almost as now it stands, except for the addition of a second apse. Though not remarkable for beauty of design, it is nevertheless of artistic value, if only as indicating the transition of style which gave to ecclesiastical architecture its calm and serious aspect.

Cologne is rich in monuments of the Romanesque and transitional eras, the oldest among them and one of the best preserved being the church of Santa Maria in Capitolio, consecrated by Leo IX in 1049. Originally built, as is claimed, in 700, by the wife of one Pepin Heristall, the nave was reconstructed about the middle of the eleventh century, to which period belongs the present edifice, except for the upper portions of the choir and transepts. A noticeable feature, and yet by no means uncommon, is the triapsal disposition, seen also in the churches of the Apostles and of Saint Martin. In all the effect is imposing, and especially in the church of the Apostles, the three apses forming a graceful substructure for towers and dome, and adding much to the beauty of the interior, as it opens up gradually from the nave.

The church at Hildesheim is also one of the oldest and purest specimens of its order. Especially beautiful are the arches and the capitals of the pillars, a handsome pier being substituted for every third column, while lack of length in proportion to breadth is compensated by the use of screens. In the minster at Bonn the eastern apse and its flanked towers are noble specimens of eleventh century workmanship, as also is the abbey church at Laach, one of the few whose plan has not been altered to suit the changing tastes of the age. A remarkable feature is the grouping of its towers of different forms and sizes in combinations strikingly picturesque.

In Saxony the vaulted roof in combination with the basilica was first used in the cathedral which Henry the Lion founded at Brunswick in 1171. In the cathedral at Naumburg, consecrated in 1242, is one of the most perfect specimens of the Transition style, with rich and graceful details and one of the most handsome of Romanesque lectoria. “But," says the critic already quoted, "the highest perfection of this style is seen in the magnificent cathedral at Bamberg, in which the excellencies of the Rhenish and Saxon schools are blended together in exquisite beauty. The design is grand; the proportions are

vast and powerful, and at the same time there evidenced in the freedom and slenderness of the forms. The rich organization, the is an inspiring character purity of outline, and the elaborate ornamentation place this work in the foremost rank among the architectural creations of the middle ages.

In Italy the Romanesque is found in conjunction or side by side with many other styles of architecture, from the simple Christian basilica to the must elaborate forms of the Arabic. In Rome the basilica was preserved in various forms until near the close of the thirteenth century, for here were utilized the ruins of antique monuments so Iong as any fragments remained. Hence progress was rather in decorative than in structural art, in the embellishment of columns and entablatures, in interior details, and in mosaic work in richly colored marbles, of which there was an inexhaustible supply. Foremost among the artificers of this age were the members of the Cosmati family, of whose richly sculptured altars and choir screens many specimens have been preserved.

In Tuscany was developed a more independent style of architecture, of which the grandest and one of the oldest specimens is the cathedral of Pisa, founded in 1063, though its baptistery and campanile—the leaning tower—belong to the following century. While of the basilica type, five-aisled and with transept in three divisions, there are traces of Byzantine and Arabic influence, especially in the domical treatment. Remarkably rich is the columniation of the exterior, rows of arcaded columns rising in stories and extending like galleries around the walls. The pillars of the nave are of granite with antique marble capitals, while those of the aisles, it is said, were brought in Pisan galleys from the ruins of classic temples. But much of the interior decoration is of later date, the altars being designed by Michael Angelo and the mosaics of the dome and apse by Cimabue. The inclination of the campanile, 183 feet in height, was originally caused by a giving way of the soil, this form being afterward maintained through caprice, or for the effect it would produce. Its walls are of marble, 13 feet thick at the base, whence, from a range of arches supported by columns, rise seven arcaded stories. The ascent is so easily made by flights of stairs that the slope is hardly noticed until reaching the top, where the visitor looks down in an oblique line beneath a cornice nearly 14 feet out of the perpendicular.

The Pisan style became popular in other Italian cities, the plan of its cathedral being reproduced, for example, in the church of San Michele in Lucca, but in details more quaint and fantastic. Of graceful outline are the facade and apse of the cathedral church at Troja, the lower story adorned in imitation of the rich foliage characteristic of southern Italy, and crowned with a cornice elegant in profile and sculptural decoration. In the upper story a large rose window takes the place of arcades, this being the principal feature of the original design.

In Florence one of the most striking developments of the basilica form is the church of San Miniato, erected in the eleventh or twelfth century on an eminence overlooking the city. It is small but perfect in outline, the facade, faced with marble and resting on a row of arcaded columns, presenting an almost classic elegance of outline. Especially beautiful is the baptistery, a domed and galleried octagonal structure whose Corinthian pillars probably belonged to some ancient Roman temple.

The church of Saint Mark at Venice has been mentioned in connection with Byzantine architecture, to which order belonged the original edifice consecrated in 1085, but with nothing suggestive of the splendid ecclesiastical monument of the present day. In the reign of every doge some addition was made to its plan or its decorative scheme, so that the walls, extended far beyond their original limits

were covered on both faces with the choicest of colored marbles or with mosaics laid on a ground of gold, even the white marble used for sculpture being entrusted with gold.

In lower Italy and Sicily there is a strange and fantastic blending of forms, as might be expected from countries that passed successively under Byzantine, Saracenic, and Norman domination. Here are found in conjunction the early Christian basilica, the Byzantine dome and cross, the pointed arch of the Arabic order, and the massive Norman tower, yet often combined with a richness of fancy that more than atones for heterogeneity of plan. Of this there is an example in the monastery church at Monreale, one of the finest monuments of the Norman kings who, after expelling the Mohammedans, established their capital in the adjacent city of Palermo. The nave is distinctly basilican, wide and with narrow aisles, slender monolithic columns with antique capitals, doubtless the spoils of older buildings, supporting lofty and pointed arches. In place of a triforium is a clear-story; the roofs, low in pitch, are of plain open woodwork, richly colored; at the western end are projecting towers, and in the carved and inlaid doorways is a singular admixture of the Norman, Arabic, and Byzantine. The inner surface of the walls, more than 80,000 square feet in area, is entirely covered with miniature paintings in mosaic, brilliantly colored on a ground of gold, while in the apses and elsewhere are scriptural scenes and figures. In front of the high altar is the marble throne of the founder, William II, and behind it that of the archbishop, the porphyry sarcophagi of the former and his father. William I, being restorations after the fire of 1811, as are the clumsy choir-fittings, and other portions of the interior.

In the twelfth century Palermo was known as "the city of the threefold tongue;" that is to say, the Greek, Latin, and Arabic, in all of which languages inscriptions are to be found in Christian-Saracen buildings. The palace chapel built by King Roger, soon after his coronation in 1130, is one of the finest examples of this style of architecture, especially in its wall mosaics and brightly painted ceiling, gleaming with stalactites. In the cathedral of Palermo the mosaic decorations convert what would be otherwise a plain exterior into a handsome but somewhat over-fanciful composition. In lower Italy are also strong traces of Arabic influence, as in the cathedrals of Salerno and Amalfi, whose original plan has not been entirely obliterated by modern transformation.

Lombard architecture inclines somewhat to Germanic types, as might be expected of a people whose original home was on the southern shore of the Baltic. Brick, occasionally coated with marble, is the material commonly used, thus requiring a strong surface decoration, while a tendency toward the fantastic. The tower is seldom used in the development of the facade, which usually rises from the nave in a single composition, sometimes altogether too lofty for the main body of the edifice. Of this there is an example in the twelfth century cathedral at Modena, whose marble-lined campanile, its summit 315 feet above the pavement, dwarfs the low three-aisled and triapsidal structure beneath.

In France many forms have been developed from the Romanesque, and nowhere perhaps is stronger evidence of the adaptability of this Style of architecture.

Especially in southern France the flat-roof of the basilica was early replaced by vaultings extended over nave and aisles, galleries being often placed over the side aisles, and the choir finished in rich and elegant details. More even than in Italy may be observed an adherence to classic models, some doubtless introduced by Roman conquerors and later adapted to the tastes and needs of a people whose art had already begun to show the versatility of genius characteristic of this gifted nation.

A noble edifice, and the largest in southern France, is the church named after Saint Sernin, who, as tradition relates, first preached the gospel at Toulouse, and there, about the middle of the third century, suffered a martyrs death. As now it stands, after many additions and restorations since the oldest portion was consecrated in 1096, it is 375 feet in length by 215 in breadth, the nave having double and galleried aisles, and the choir radiating apses, with others at the arms of the cross, above which rises a slender and graceful tower supported by masonry altogether too heavy for its superstructure. Over the southern entrance the Ascension is represented in the most finished style of Byzantine art, and of the same workmanship is an eleventh century figure of Christ in one of the chapels, another chapel containing the tombs of the earlier counts of Toulouse.

Among other examples of the French-Romanesque are the cathedral of Avignon and the church of Saint Gilles at Abbeville, both with later Gothic treatment and with portals after the fashion of the antique. At Clermont the church of Notre Dame du Port is rich in mosaic and columnar decoration. Before the building of St. Peter's, the abbey church at Cluny, completed in 1131, was the largest ecclesiastical structure in Europe, about 650 feet in length, with ten apses, five aisles, and as many chapels radiating from the choir, the loftiest of its seven towers surmounting the principal transept. Of this parent monastery of the Cluniac order, once the most powerful in Christendom, the abbots residence, as restored after the revolution of 1789, was later converted into a museum, the cloisters into a school, and the remains of the church into a government stud.

In part of Romanesque architecture are the Norman churches of La Trinite and St. Etienne, both founded in 1066, the former by Queen Matilda and the latter by her husband, William the Conqueror, whose memory is still perpetuated by the plain marble slab which marks his desecrated tomb. Both are vaulted and pillared basilicas, regular in design and severe in style, with none of the ornamentation characteristic of southern temples, though the towers above the facade of St. Etienne are of elaborate workmanship.

With the conquest of England by William of Normandy old Saxon architecture came to an end, and well perhaps that it was so; for there was little of beauty in its wooden buildings, while all that was best worth preserving was combined with Norman and Gothic styles in forms that later became national. If there was nothing distinctly Romanesque, there were at least many traces of it in these gloomy, massive, Anglo-Norman cathedrals, more fitted, as it would seem, for medieval strongholds than for temples of worship. Of those that remain, the most striking examples are the cathedrals of Norwich and Peterborough; but as with others presently to be described, both are more or less transformed from their original design.

In northern Spain were freely adopted, during tin eleventh and twelfth centuries, the architectural forms of southern France; but during the long struggle that closed with the surrender of Boabdil, Moorish influences were at work modifying and at times even supplanting the structural designs of the Spaniards; for in the monuments of Islam there was much to commend. Later was gradually developed a style which in its constructive features was distinctly Romanesque, but in decorative scheme was borrowed from the rich fancies of Arabic art.

Of the French Romanesque the cathedral of Salamanca founded in the twelfth century by Bishop Geronimo, the confessor of the Cid, is one of the finest examples. The choir is formed of parallel apses, a peculiarity in Spanish churches of this period, and in the treatment of the double dome there is much of originality, the inner one springing from a double arcade and the outer one pointed and

covered with tiles. In the chapels and southern transept are many valuable monuments; in the reredos are several of Florentino's panel paintings, and on the vault of one of the apses is his fresco of 'Our Lord in Judgment.' To the same epoch or very nearly so, belong the church of San Isidoro at Leon and the cathedral of Santiago de Compostella, both resembling the church of St. Sernin at Toulouse, though richer in plastic ornaments. In the portal of the cathedral is one of the finest specimens extant of twelfth century sculpture, French in style, but by a Spanish artist. On the tympanum is a relief of Christ enthroned in majesty, and around the central arch are the four and twenty elders, even the shafts being decorated with statues of saints. While in all the figures there is a certain the rigidity, as in the stiff apparel, pointed beard, and the meaningless smile, this in part the result of conformity to architectural lines.

Of the combination of the Romanesque and Moorish the cathedral of Tarragona may be cited as an example, though in its strongly developed columniation are traces of Norman influence. The eastern and older portion is of eleventh century workmanship, and while the body of the edifice belongs to the transitional era, and other portions to a later period, the fanciful ornamentation of the sculptured capitals does not detract from the severe simplicity of the masses. In the cloister, communicating with the church by a handsome doorway, and especially in the tracery of its windows, are the most interesting tokens of Saracenic art. In the cathedral of Zamora and the collegiate church of Toro is also an abundance of Moorish details in conjunction with the solid architecture of the later Romanesque.

Through the same agencies that fostered the revival of architecture was retarded the development of the sister arts. While in architectural monuments was expressed the universal sentiment of the Christian world, as molded by priestly influences, it was not so with sculpture and painting, which depend rather on the individual and on the estimation in which his profession is held. Until the thirteenth century, as we have seen, and in some countries until a much later date both were cramped by the lifeless methods of the Byzantine school, with here and there a feeble imitation of classic models. To promote the cause of the church was the sole aim of Christian art, and in nature the church saw only that which was sinful; so that with no independent conception of natural beauties, it is hardly too much to say that the art of the world was confined to the cloister cell.

While secular artists were not entirely unknown, the church secured the best artistic talent, affording the widest range of subjects and the most varied opportunities for employment. With sacred scenes and figures were intermingled all that the learning of the time could afford, all the rich legendary of Greece and Rome, together with that which it personified—the sun and moon, the stars in their courses, the cycles and the seasons, natural phenomena of whatever kind, and especially virtue and vice, sirens and satyrs being freely used as symbolic of temptation and crime. Moreover, in church decorations there was a manifold variety of work. Besides the sculptural ornaments of facades, the painting of walls and ceilings, of windows and vaulted domes, there were the portals, choirs, and pulpits, the sacred vessels and implements, and the preparation of manuscripts often requiring the execution of miniatures in the most finished style of pictorial art.

As with architecture, so with sculpture, the Germanic races excelled in vigor and variety; for not only were they susceptible to new ideas, skilful in imparting freshness to the antique, but there were other causes at work. The exaltation of the empire had kindled the aspirations of a people prone to ambition, while intimate relations with Italy had developed a taste for art, stronger perhaps than in

the Italian himself. Thus the ancient modes of treatment at first adopted, in forms too often rude and misconceived, had given place to originality, albeit still hampered with Byzantine influences.

Gradually a further development is noticed until, in the thirteenth century, the antique was merely used as a basis for the higher conceptions engendered by the age of chivalry, by the age of freedom, by the growth and prosperity of the nation, and by contact with the East. If art was not yet released from the fetters of tradition, there are instances of real artistic genius revealing itself in noble forms, instinct with a pure and beautiful life.

It is in decorative sculpture, and especially in ivory carvings, that the German-Romanesque first assumes individuality. Of this material were fashioned goblets, drinking-horns, book-covers, tablets, and other articles, many of them adorned with figures in relief, awkward and stiff it may be, except where modeled after the courtly style of the Byzantines, but with a certain rude vigor and freshness of treatment. Of such works there are numerous specimens in churches, libraries, and art galleries, a hunting-horn in the cathedral at Prague, adorned with representations of gladiators and with the figures of griffins and centaurs affording an excellent idea of the fanciful style of this early period. In a diptych in the Cluny museum at Paris, the emperor Otto II and his spouse, of doll-like stature and garb, are being blessed by a majestic figure of Christ, attired in the semi-classic drapery characteristic of the early Christian period.

In metallic sculpture, as in architecture, the Rhine provinces present the most numerous specimens of the Romanesque, works being cast in bronze as early as the tenth century, and especially doors for churches, resembling somewhat those of Byzantine pattern fashioned in Italy about this period. Visiting Rome in 996, as a member of the suite of Otho III, Bernward, bishop of Hildesheim, a man fairly versed in art, brought back with him the designs for the brazen gate of his cathedral with its rows of figures in relief representing scriptural scenes. While the figures are sufficiently awkward, the upper portion inclining forward and separated from the panel, the drapery is in better taste, and in the entire composition there is an attempt at dramatic energy, as where Cain is slaying his brother or shrinking before the threatening hand of God. In the square in front of the cathedral, and formerly one of the pillars of its choir, is a bronze column modeled after the Trajan monument, with reliefs representing the life of Christ wound spirally around it.

Of superior workmanship are the baptismal fonts in the cathedrals of Hildesheim and Osnabruck, both covered with spirited reliefs, and the former resting on figures typical of the rivers of Paradise. But in better art than either is the font in the modernized basilica of St. Barthelemy at Liege, a twelfth century composition by Lambert Patras, and one of the finest of the age. The basin is supported by twelve oxen, in imitation probably of the brazen sea in the portico of Solomon's temple, and on its surface are figure-subjects of baptismal scenes in attitudes almost as natural as in classic art. In other articles of church equipment decoration is freely used as in the bronze candelabra still, existing in the cathedral of Aix-la-Chapelle and in the collegiate church at Essen, the latter one of the few remaining specimens of the favorite Romanesque device which has for model the seven branched candlestick of the temple. Of fantastic design is the richly ornamented chandelier in the cathedral at Prague, its foot containing a strange admixture of human and animal forms intermingled with elegant branch work. Among others deserving of mention are the bronze effigies of Bishop Frederick at Magdeburg and of Rudolph of Swabia in the cathedral of Mersburg. In gold and silver the shrine of the kings at Cologne ranks first among surviving specimens.

Sculptures in stone and stucco are plentiful on the walls and portals of churches, their choir rails, screens, and lectoria, one of the earliest examples being the stone reliefs in the cathedral of Basle showing figures of martyrs and apostles. To the twelfth century belongs the choir screen of Hildesheim cathedral, one of the most finished productions of the age, with reliefs on the lower portion little inferior to Hellenic art. Of thirteenth century design are the reliefs in the choir of Bamberg cathedral and the sculptures of "the golden gate" in the cathedral of Freiburg, later transformed into a Gothic edifice. The principal theme of the latter is the adoration of the kings on the pediment of the arch, the figures of the Trinity surrounded with angels appearing on the archivolts, and detached figures between the columns on either side. The execution is original and expressive, the work, it must be, of some highly gifted artist, for nowhere else are so well combined the best features of the Romanesque with the sublimity of the antique.

Between the twelfth and fourteenth centuries the sculpture of France was the most profuse and in some respects the best in the world; yet there is little of merit that belongs strictly to the Romanesque. The main facades of churches and cathedrals were not infrequently a mass of statuary with barely enough of structural outline to form a background for the figures. Of this there is an instance in the cathedral of St. Peter at Poitiers, whose western front is almost covered with rows of statues interspersed with foliated carvings. Architectural accessories were also covered with sculptures, even to the shafts of doorways, as appears in the cathedral of Chartres, where colossal effigies with rigid folds of drapery serve to relieve the upward lines. On the portals of the cathedrals of Bourges and Le Mans are excellent specimens of twelfth century workmanship, but with a stiffness of form and attire indicating a revival of hieratic influence. At the entrance of the abbey church at Conque is the most ambitious monument of this period, representing the oft-recurring scene of the last judgment in awkward figures of Christ, his angels, his elect, and those whom he has not elected.

Until the revival of plastic art in the days of the Pisani, the sculpture of Italy was far inferior to that of Germany or France. Much of it was the work of foreign artists, of men who were architects by profession and knew only enough of sculpture to decorate in some rude fashion their structural compositions. The eleventh century produced little of merit, and that which was tolerable is of the Byzantine school, or with strong traces of the Byzantine. In the following century a new tendency may be observed, but at first in such crude imitation of natural forms as to threaten with dissolution the little that remained of the true artistic spirit. The strangest of symbolism was also employed, as appears, for example, in the relief figures of Saint Luke and Saint John taken from a church at Aquileia. Toward the close of the century an improvement is perceptible, especially in bronze work, of which one of the best examples is in the sculptured portal of the cathedral of Ravello, designed, as is said, by Barisanus of Trani, to whom are also ascribed the cathedral gates at Monreale.

Thus far, in Italy, sculpture as a medium of expression had been held in subordination to architecture; for the grand and sublime can be better conveyed in masses than in details, and the time was not yet when all the arts should unite in the grand medieval cathedrals which became, not only the temples of worship, but the sculpture and picture galleries of the Christian world. Yet, says a writer on this period, "decoration, though it lagged behind construction, was so joined with it in motive that its very purpose spurred it on.

Bishops' cathedra were elaborately covered with sacred scenes; pilasters were cut in imitative foliage through which symbolic animals leaped and peered; choir portals enshrined their statuary; carved

fonts and pulpits were surmounted by lions whose colossal red stone bodies contrasted with the soft white Carrara marble in common use, and sculptured altars, fairly incrusted with scriptural reliefs, rehearsed again and again the gospel story.

But with rare exceptions, the sculptor's skill did not keep pace with his ideals, until, near the middle of the thirteenth century, Niccola Pisano appears on the scene as the pioneer of the renaissance. Except in his works there are few records of his life, the first that is known of him, or rather said of him, referring to his services in the employ of Frederick II in 1221, at which date Niccola was fifteen, or as some have it, seventeen years of age. He was a thorough student, especially of classic models, though not neglecting what else there was of the beautiful in plastic art. Structural forms he also studied, and to such purpose that he became the greatest architect as well as the greatest sculptor of his age. But chiefly he is famed as the man who first gave new direction to hieratic sculpture, which still delighted in the unreal, the terrible, and austere, using in his art all the gifts of God, and converting those which were merely physical into symbols of purity and love. Thus in his panel reliefs in the pulpit of the Pisan baptistery, he did not hesitate to place figures of the nude side by side with the classic drapery in his 'Adoration of the Magi.' Yet, as has been truthfully remarked, his Madonnas are as worshipful and his saints as saintly as those of any sculptor the world has ever seen.

Of the works that have come down to us the earliest is his 'Deposition from the Cross' on a tympanum of the church of San Martino at Lucca. It is a graceful and delicate composition, though not without traces of the stiffness and monotony of the Romanesque. Nearly thirty years later, in 1260 as an inscription records, was completed his pulpit for the baptistery of the cathedral at Pisa, in some respects the finest of his compositions. It is hexagonal in shape, and of pure white marble, with handsome staircase and balustrade, the supporting pillars in the center and at each of the angles, connected by trefoil arches and resting on lions or other animal figures. The decoration is sufficiently profuse without interfering with the architectural scheme. Over the capitals are allegorical figures of the virtues and between the arches, symbolic paintings and reliefs of the prophets and evangelists. On the sides of the pulpit are portrayed, among other subjects, the nativity and the adoration of the Magi. In the former the Madonna rests on a pillow and in the latter is enthroned and diademed as though receiving the homage of her subjects. The poses and gestures are appropriate, and the drapery is arranged in natural folds; but the features, while full of grace and dignity, are too strongly suggestive of classic models, those of the virgin, for instance, having nothing of the Hebraic cast, but resembling rather Juno, while Joseph might be the Hephaestus of the Greeks and the heads of the magi Jove and Apollo. In 1266 was executed by Niccola the pulpit for the cathedral of Siena, in which, as in his Area di San Dominico, with sculptured stories of Saint Dominic's life, is a freer style, showing less of the severity of the antique. Giovanni, the son of Niccola, was also a sculptor of note, inclining rather to the Gothic, as appears in his first important work, an allegorical figure of the city of Pisa, erect in queenly attitude, and in his richly decorated altar and reredos in the cathedral of Arezzo.

In the Romanesque as in the Byzantine period, sculpture was often treated as uncolored painting, and especially in decorative work, in the ornamentation of altars and crosses, of gilded and silver plates, of gems and cameos, with filigrees and enamels, was the transition made from plastic to pictorial art. Of both kinds of workmanship, and especially in enamels, many fine specimens have been preserved in museums and churches, not a few showing such a degree of artistic and technical skill as almost to raise them to the dignity of legitimate art. Though first appearing in Byzantine models, enamel work reached a higher development in France, Limoges, famous for its emaux champs-leves, being the

center of this industry until late in the middle ages. In the process a copper plate was commonly used as the groundwork, in which cavities were chased out to receive the enamel and the surface fired, polished, and gilded, the figures being either in enamel on a metallic background or in metal on a background of enamel. Later the inlaid process was superseded by painting, for which the translucent enamels in the style introduced in Italy early in the fourteenth century, with gold or silver as the basis, probably prepared the way.

Some of the best of eleventh century enamels are treasured in the churches of Hildesheim and Essen, while to the following century belong the reliquaries in the cathedrals of Osnabruck and Aix-la-Chapelle, and the shrine of the kings in the cathedral of Cologne, all richly adorned with precious stones and arabesques. At the Austrian village of Kloster-Neuberg is the Verdun altar, executed by an art-worker of that city in 1181, on which some fifty gilded plates are covered with scriptural scenes engraved in deep cavities and brilliantly colored. Many of the figures show strength of treatment, especially that of Samson in conflict with the lion, a crude but forceful composition.

Andrea Pisano, a pupil first of Giovanni, son of Niccola, Pisano, and then of Giotto, was one of the most famous of fourteenth century sculptors. His masterpiece was the bronze door on the southern side of the baptistery of the Florentine cathedral, in which all the vigor of sculptural art is combined with the delicacy of the goldsmith's—Andrea's original trade. On quatrefoil panels are small allegorical figures of the virtues and scenes from the life of John Baptist, executed with singular harmony and simplicity and without attempt at pictorial effect, as was then the fashion of the times.

One of the finest examples of cloisonné work is on the altar of Saint Marks at Venice, whose gold and silver panels and medallions are beautifully enameled. A valuable specimen of ancient cloisonné is the so-called Alfred jewel, preserved in an Oxford museum. The face is in rock-crystal; beneath it is a figure in transparent enamels of various colors, and around the edge an inscription in Anglo-Saxon, which translated signifies "Alfred ordered me to be made." A rare and costly variety of cloisonné is that which is known as de plique a jour, composed of transparent enamels without background, their edges fastened to the windows in which they are framed. A small specimen, now in the South Kensington museum, was purchased for $2,000.

The development of painting, such as pertains to the Romanesque, may be traced in the numerous miniatures belonging chiefly to monastic art, for the most part a servile and clumsy imitation of the antique, but not without traces of individuality. The forms stand forth from a colored background, but without attempt at landscape or other environment, as in Byzantine depiction, from which in truth the Romanesque differs only in minor details. The colors are rich and varied, but applied with more regard to effect than to harmony or truth, the hair being often painted green or blue, while the picture is further impaired by the hollow, sunken cheeks, the lean, lank figures and the stiff folds of rigid drapery characteristic of early Christian methods. In the transition to a freer and more natural style consists whatever there may be of merit in the Romanesque.

In the libraries of Munich and Bamberg are some of the finest of medieval manuscripts and miniatures, the choicest among them, presented by Henry the saint early in the eleventh century, showing strength of conception if marred by over-coloring. After another period of degradation we find a more lively interpretation of the antique, with freer and more fanciful rendering, especially in marginal decoration. Later is seen the effect of the bards, whose poetry, together with the sentiment of chivalry, is interpreted in paintings or drawings with no uncertain touch and with a freshness of

feeling before unknown. Still later is seen a material improvement in the wall painting of churches, in which there is much of dignity and over-much of formality, the figures standing boldly forth from the background and with due regard to architectural lines. In Germany some of the best examples are the twelfth century works in the church of Schwarzeheindorf, and especially those which represent the crucifixion, the transfiguration, and the expulsion of the money-changers. Others are in the church of St. Savin in Poitou, where is noticed more freedom in attitude and drapery, as also in the church of St. Michael in Hildesheim, where the pedigree of Christ is shown in a series of medallions.

During the Romanesque epoch Italy stands in a subordinate position, until the time of Giotto, Guido, and Cimabue whom some have termed the fathers of the renaissance, the lust especially panning with such truth and forcefulness that to him and his pupils is largely due whatever there is of excellence in the Florentine school. It may indeed be said that in the history of Italian painting he fills the same place that was occupied by Polygnotus in the classic era, making the best of the limited resources at his command and laying the foundation for the future glories of the renaissance. At that date, it should be remembered, there was little knowledge of perspective, of the gradations of light and shade, or of the structure of the human choice of sub-frame; yet all that could be done he did, restricted as he was in choice of subjects to ecclesiastical art, the only form that was tolerated in this superstitious era. While trammeled by the methods and traditions of the past, while unable to express, except through symbol and suggestion, the truths of nature as they were rendered in future ages, over the elements that were at his command he held a control so perfect that his works have been preferred to those of more favored and accomplished artists. In some respects they have never been excelled, as in the division of space, in grouping, in balance, in grasp of motive, and in purity of coloring. He it was who first breathed into the rigidity of Byzantine art the breath of natural emotion, and his name is one of the few that becoming great in the age when he lived, was respected by the great masters of all the ages that were to come.

Among the earliest works of Giotto were his frescoes in the church of Assisi, illustrating the life of Saint Francis, the best of them representing his espousal of Chastity and Poverty and his apotheosis enthroned in glory. In this series Giotto has done what thus far no one else had dared to do in art, combining many trifling details with the subject matter of his theme, as where a dog is barking at the feet of Poverty and where a man is stooping to drink from a rock whence Saint Francis caused water to flow. In his painting of heaven and hell for the chapel of the Podesta, the artist introduced figures typical of pacified Florence after its party wars, together with portraits of Dante, Donato, and others, a group recovered in 1841 from the coating of whitewash which had overlaid it. When somewhat over thirty years of age, after travelling almost throughout Europe in the exercise of his profession, Giotto was summoned to Rome by Benedict XI, whose messenger first demanded proof of his ability. Thereupon, as is related, dipping a pencil in red coloring matter, he drew with a single turn of his hand the letter O in the form of a perfect circle, and handing it to the messenger, said, “Here is your drawing.” The pontiff was satisfied, engaging Giotto at a handsome salary to adorn with frescoes his palace at Avignon—a commission that was never executed for Benedict died soon afterward. In Rome only a few remnants of his work have been preserved; but in Florence, Padua, Ravenna, Lucca and other Italian cities are many paintings that bear his name, the decoration of the facade and campanile of the cathedral of Santa Maria del More being perhaps the crowning monument of his strong and brilliant career.

Giotto was but ten years of age when he became the pupil of Cimabue, who, as the story reads, found him by the roadside sketching on a slate, with a piece of charcoal, the figure of a sheep. The latter was then the most famous artist of his time, though afterward far excelled by his disciple combining all that was best in the compositions of Guido, Giunta, and others.