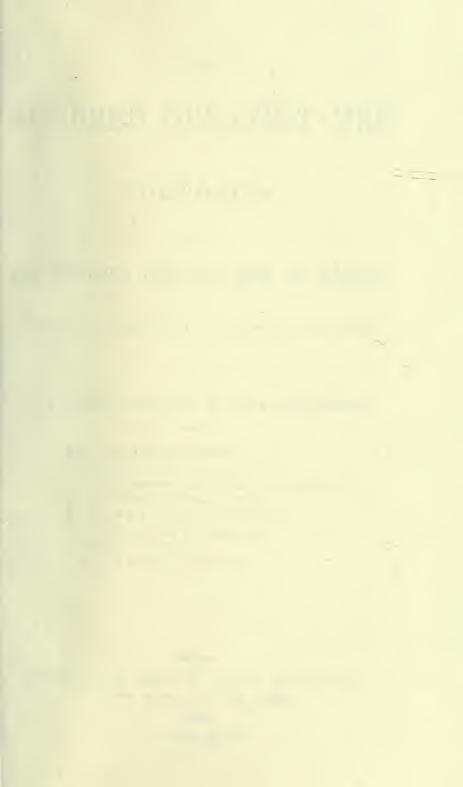


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HUNDRED GREATEST MEN

PORTRAITS

OF THE

ONE HUNDRED GREATEST MEN OF HISTORY

REPRODUCED FROM FINE AND RARE STEEL ENGRAVINGS.

WITH GENERAL INTRODUCTION BY RALPH WALDO EMERSON

AND TO

BOOK I. BY MATTHEW ARNOLD

- , II. BY H. TAINE
- , III. BY PROFESSOR MAX MÜLLER AND E. RÉNAN
- ,, IV. BY PRESIDENT NOAH PORTER
- .. V. BY THE VERY REV. DEAN STANLEY
- . VI. BY PROFESSOR H. HELMHOLTZ
- " VII. BY J. A. FROUDE
- .. VIII. BY PROPESSOR JOHN FISKE

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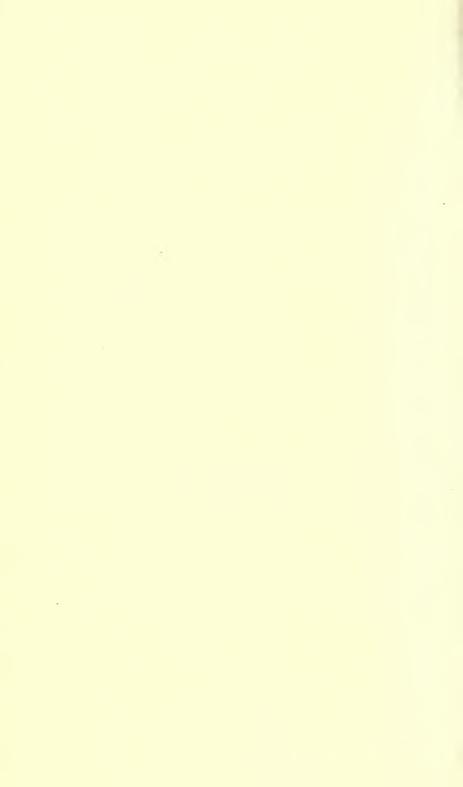
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PREFACE.

In the preparation of the present work an attempt has been made to separate the facts of civilization into classes, and to gather together in each class the portraits of the few great leaders who, from the beginning of history down to the present time, have been its representatives. In one of these classes appear Homer, Dante, and Shakspeare; in another, Alexander, Cæsar, and Napoleon; in another, Archimedes, Galileo, and Newton. In each class—Poetry, Art, Religion, Philosophy, History, Science, Politics, Industry—from fifteen to twenty portraits, arranged in chronological order, and each portrait accompanied by a carefully written biography.

There is a growing belief that no interest in the world can ever equal the interest felt in human beings. However much we may become absorbed in the study of facts and theories, and in the enjoyment of works of art, we must in the end ever turn with an eye of the deepest interest to the men who have illustrated these facts, propounded these theories, and given us these works. We always want the portraits of those we admire and venerate. There is no inspiration so powerful as that derived from the frequent study of a great example.

Apart from these considerations, such a collection ought to make a fascinating and beautiful work, and also one peculiarly instructive; each book, in fact, presents virtually a special course of history, and this in the most vivid and graphic form. Book I. is a history of Poetry, Book II. a history of Art, and so on; while the eight classes taken together offer a complete history of mankind—a picture of human progress in all its departments. This effect will be heightened by the introductions, which are intended to serve as links uniting the different biographies together.



GENERAL INTRODUCTION.

By RALPH WALDO EMERSON.

THE Spanish historians tell us that it was not any of the wild and unknown animals or fruit or even the silver and gold of the new world, but the wild man, that concentrated the curiosity of the contemporaries of Columbus. And we all of us remember in the charming account of the prince of the Pelew Islands, brought in the last century into England, that what most of all the splendid shows of London fastened his eye with mystery of joy, was the mirror in which he saw himself. In like manner it is not the monster, it is not the remote and unknown, which can ever powerfully work on the human mind; the way to touch all the springs of wonder in us is to get before our eyes as thought, that which we are feeling and doing. The things that we do we think not. What I am I cannot describe any more than I can see my eyes. The moment another describes to me that man I am-pictures to me in words that which I was feeling and doing, I am struck with surprise. I am sensible of a keen delight. I be, and I see my being, at the same time. glances from itself to the picture with lively pleasure. Behold what was in me, out of me! Behold the subjective now objective. Behold the spirit embodied.

What does every earnest man seek in the deep instinct of society, from his first fellowship—a child with children at play—up to the heroic cravings of friendship and love—what but to find himself in another mind: because such is the law of his being that only can he find out his own secret through the instrumentality of another mind. We hail with gladness this new acquisition of ourselves. That man I must follow, for he has a part of me; and I follow him that I may acquire myself.

The great are our better selves, ourselves with advantages. It is the only platform on which all men can meet. If you deal with a vulgar mind, life is reduced to beggary. He makes me rich, him I call Plutus, who shows me that every man is mine, and every faculty is mine—who does not impoverish me in praising Plato, but contrariwise is adding assets to my inventory.

An ethereal sea ebbs and flows, surges and washes hither and thither,

carrying its whole virtue into every creek and inlet which it bathes. To this sea every human house has a water-front. Every truth is a power. Every idea from the moment of its emergence begins to gather material forces—after a little while makes itself known. It works first on thoughts, then on things; makes feet, and afterwards shoes; first hands, then gloves; makes men, and so the age and its material soon after. The history of the world is nothing but a procession of clothed ideas. As certainly as water falls in rain on the tops of mountains, and runs down into valleys, plains, and pits, so does thought fall first in the best minds, and runs down from class to class, until it reaches the masses and works revolutions.

The Universal Man is now coming to be a real being in the individual mind, as once the Devil was. All questions touching human life the daily press now discusses. I will not say that there is no darker side to the picture, or that what is gained in universality is not lost in enthusiasm. We have in the race the sketch of a man which no individual comes up to. I figure to myself the world as a hollow temple, and each several mind as an exponent of some sacred part therein; each a jet of flame affixed to some capital, or triglyph, or rosette, bringing out its significance to the eye by its shining.

We delight in heroes, but we can hardly call them a class: for the essence of heroism is that it takes the man out of all class. We call them providential men. They draw multitudes and nations after them, as the nation shares the idea that inspires them. I know the pure examples are few; a few benefactors scattered along history to make the earth sweet. For the most part, the mud of temperament clouds the purity, and we see this sheathed omnipotence in characters we cannot otherwise respect. They show their legitimate prerogative in nothing more than their power to misguide us. For the perverted great derange and deject us, and perplex ages with their fame.

The great men of the past did not slide by any fortune into their high place. They have been selected by the severest of all judges, Time. As the snow melts in April, so has this mountain lost in every generation a new fragment. Every year new particles have dropped into the flood as the mind found them wanting in permanent interest, until only the Titans remain.

Nothing good, nothing grand has been withheld. The ages of Time, the resources of Being play into our tutelage. Here the world yields to us its soul. To our insight old sages live again. The old revolutions find correspondence in the experiences of the mind. Wonderful spiritual natures like princedoms and potentates stand bending around us. Each one of the century represents a department of life and thought.

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THE HUNDRED GREATEST MEN.

BOOK I.

Poetry.

POETS-DRAMATISTS-NOVELISTS.

INTRODUCTION.

THE men who are the flower and glory of our race are to pass here before us, the highest manifestations, whether on this line or on that, of the force which stirs in every one of us—the chief poets, artists, religious founders, philosophers, historians, scholars, orators, warriors, statesmen, voyagers, leaders in mechanical invention and industry, who have appeared amongst mankind. And the poets are to pass first. Why? Because, of the various modes of manifestation through which the human spirit pours its force, theirs is the most adequate and happy.

The fact of this superior adequacy of poetry is very widely felt; and, whether distinctly seized or no, is the root of poetry's boundless popularity and power. The reason for the fact has again and again been made an object of inquiry. Partial explanations of it have been produced. Aristotle declared poetry to be more philosophical and of more serious worth than history, because poetry deals with generals, history with particulars. Aristotle's idea is expanded by Bacon, after his own fashion, who extols poetry as "submitting the shows of things to the desires of the mind," to the desires for "a more ample greatness, a more exact goodness, and a more absolute variety, than can be found in the nature of things." No man, however, can fully draw out the reasons why the human spirit feels itself to attain to a more adequate and satisfying expression in poetry than in any other of its modes of activity.

For to draw them out fully we should have to go behind our own nature itself, and that we can none of us do. Portions of them we may seize, but not more; Aristotle and Bacon themselves have not succeeded in seizing more than portions of them. And at one time, probably, and to one set of observers, one ground of the primordial and incontestable fact before us comes clearest into light; at another, and to other observers, another.

For us to-day, what ground of the superiority of poetry is the most evident, the most notable? Surely its solidity. Already we have seen Aristotle prefer it to history on this very ground. Poetry has, says he, a higher wisdom and a more serious worth than history. Compare poetry with other efforts of the human spirit besides history. Compare it with art. It is more intellectual than art, more interpretative. Along with the plastic representation it utters the idea, it thinks.

Poetry is often called art, and poets are classed with painters and sculptors as artists. But Goethe has with profound truth insisted on the difference between them. "Poetry is held to be art," he says, "and yet it is not, as art is, mechanism, mechanical. I deny poetry to be an art. Neither is it a science. Poetry is to be called neither art nor science, but genius." Poetry is less artistic than the arts, but in closer correspondence with the intelligential nature of man, who is defined, as we know, to be "a thinking animal;" poetry thinks, and the arts do not.

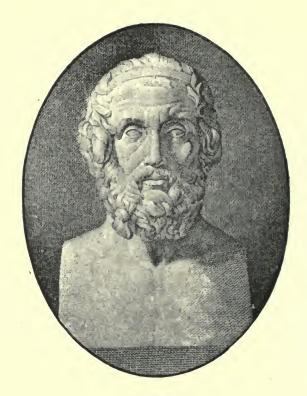
But it thinks emotionally, and herein it differs from science, and is more of a stay to us. Poetry gives the idea, but it gives it touched with beauty, heightened by emotion. This is what we feel to be interpretative for us, to satisfy us-thought, but thought invested with beauty, with emotion. Science thinks, but not emotionally. It adds thought to thought, accumulates the elements of a synthesis which will never be complete until it is touched with beauty and emotion; and when it is touched with these, it has passed out of the sphere of science, it has felt the fashioning hand of the poet. So true is this, that the more the follower of science is a complete man, the more he will feel the refreshment of poetry as giving him a satisfaction which our nature is always desiring, but to which his science can never bring him. And the more an artist, on the other hand, is a complete man, the higher he will appreciate the reach and effectualness which poetry gains by being, in Goethe's words, not art but genius; by being from its very nature forbidden to limit itself to the sphere of plastic representation, by being forced to talk and to think.

Poetry, then, is more of a stay to us than art or science. It is more explicative than art, and it has the emotion which to science is wanting. But the grand sources of explication and emotion, in the popular opinion, are philosophy and religion. Philosophy—the love of wisdom—

is indeed a noble and immortal aspiration in man. But the philosophies, the constructions of systematic thought which have arisen in the endeavour to satisfy this aspiration, are so perishable that to call up the memory of them is to pass in review man's failures. We have mentioned Goethe, the poet of that land of philosophies, Germany. What a series of philosophic systems has Germany seen since the birth of Goethe! and what sort of a stay is any one of them compared with the poetry of Germany's one great poet? So necessary, indeed, and so often shown by experience, is the want of solidity in constructions of this kind, that it argues, one may say, a dash of the pedant in a man to approach them, except perhaps in the ardour of extreme youth, with any confidence. And the one philosopher who has known how to give to such constructions, not indeed solidity, but charm, is Plato, the poet among philosophers, who produces his abstractions like the rest, but produces them more than half in play and with a smile.

And religion? The reign of religion as morality touched with emotion is indeed indestructible. But religion as men commonly conceive it—religion depending on the historicalness of certain supposed facts, on the authority of certain received traditions, on the validity of certain accredited dogmas - how much of this religion can be deemed unalterably secure? Not a dogma that does not threaten to dissolve, not a tradition that is not shaken, not a fact which has its historical character free from question. Compare the stability of Shakspeare with the stability of the Thirty-Nine Articles! Our religion has materialized itself in the fact—the supposed fact; it has attached its emotion to the fact. For poetry the idea is everything; the rest is its world of illusion, of divine illusion; it attaches its emotion to the idea, the idea is the fact. The strongest part of our religion to-day is its unconscious poetry. The future of poetry is immense, because in conscious poetry, where it is worthy of its high destinies, our race, as time goes on, will find an ever surer and surer stay.

MATTHEW ARNOLD.



HOMER.

NINTH CENTURY B.C.
THE FATHER OF POETS

Every nation has its heroic age, and every heroic age has its bard, who sings its bold exploits. Such was Homer for the heroic age of Greece.

The reputed author of the two greatest Greek poems is supposed to have lived upon the west coast of Asia Minor, the home of the Ionic branch of the Hellenic race. His date is given by Herodotus as 400 years before his own time, that is in the ninth century BC. The epic poets of that time were itinerant minstrels, or rhapsodists, who recited their poems at the courts of kings, not unlike the trouveres or minstrels of the middle ages. Homer is represented as old, blind, and a beggar wandering from place to place. The poems of the "Iliad" and the "Odyssey" were not written, but preserved in the memory, and handed down as a tradition from one rhapsodist to another. Before a nation has history it has romance; and poetry always precedes prose.

It is needless to tell again the charming old story of the beautiful Helen and the cowardly Paris, of the haughty Agamemnon and the brave Achilles, of the noble Hector and the crafty Ulysses. Goethe finds in the two chief characters of the work two great fundamental forms of human nature—Achilles the most brave, and Ulysses the most prudent of men. The fact that the "Iliad" has for twenty-five centuries retained its hold on the human mind is probably due to the masterly delineation of its chief personage, the youthful Achilles, whose intense love of a fight, great generosity, and affection for his friend, who is killed in the combat, force him to break his oath of remaining aloof, when the most munificent offers of wealth and spoil had failed to move him.

"Son of Atreus," says the repentant hero, "this would surely have been somewhat better for both thee and me. When we two, grieved at heart, raged with soul-devouring contention for the sake of a girl. But let us leave these things as past, although grieved, subduing from necessity the stirrings within our bosoms. And now I terminate my wrath, nor is it at all fit that I always obstinately be enraged—but come, quickly incite the long-haired Acheans to battle, in order that once more I may make trial of the Trojans going against them."

Achilles is the grand pagan hero, the ideal of antiquity. It is in Chants I., VIII., XI., and those following, where he shines forth, and these constitute the epic par excellence, the Achillêis, the pith and soul of the poem.

The "Odyssey" paints a heroism of a different order. It has been said that the "Iliad" is a poem for men, and the "Odyssey" a poem for women. In the latter we have the crafty character of Ulysses, brought out by twenty years' wanderings and perilous adventure, while his patient Penelope nightly unravels her web. She indeed has stood as the type of the true and faithful wife throughout all the ages.

After the Bible no book has been so universally read as Homer's "Iliad;" it has been called the bible of heroes, and it was the bible of the ancient Greeks.

"Just as we read the Hebrew history to our children, much more from a moral than a historical attitude, and give to all the facts a didactic turn, so the old Greeks read Homer as a moral work, containing models of what we ought to be, exhibitions of punished vice and meanness, examples of fortitude, of temperance, of justice, and of wisdom."

However incredible such a view may appear—for to us, as Christians of to-day, the perusal of the "Iliad" is calculated to convey anything but the idea of morality—it is certainly true for the earlier ages of the Greek civilization, and again for its latter days. In Plato's time, on the other hand, the ethic and philosophic period, standing midway between the two, the effect of Homer and the pagan poets was held by sages to be pernicious. A few hundred years later, when the method of

interpretation became that of symbolism, St. Basil, one of the great fathers, declared that the direct aim of Homer was to delineate virtue. Still later, from the time of Dante on, Homer is simply the unapproachable poet and artist. This view persisted throughout Europe down to the French Revolution. The epoch of electricity and steam brings out another; Homer is regarded from a scientific point of view. As Mr. Gladstone says: "The poems of Homer do not constitute merely a great item of the splendid literature of Greece, but they have a separate position which none other can approach. They and the manuers they describe constitute a world of their own a scheme of human life and character complete in all its parts. We are introduced to man in every relation of which he is capable, in every one of his arts, devices, institutions, in the entire circle of his experience. There is no other author whose case is analogous to this, or of whom it can be said that the study of him is not a mere matter of literary criticism, but a tull study of life in every one of its departments. To rescue this circle from inadequate conceptions, and to lay the ground for a true idea of them, I have proposed the term 'Homerology.'"

So the work of the minstrel after its thousands of years' transmigration has at last found its true place. It is no longer a gospel from which to read our children moral lessons, it is no longer the inimitable model for artists, it is a document for men of science.

The two favourite portraits of "blind old Homer" are the Townley bust upon the lower floor, and the exquisite bronze head in the second vase room, of the British Museum. The face is that of a beautiful old man, with regular features, deep sunken eyes and cheeks, and lips of ineffable sweetness.

This face is one of the finest productions of antique sculpture. Is it the face of Homer? Was there ever a Homer? Concerning the "Iliad," modern criticism maintains that far from being a perfect work of art, it is but an archaic production, a patchwork made up of two, perhaps more, pieces, written by no one man, being the spontaneous outgrowth of the naive poetic sense of a whole people; that it is totally different in kind from the "Inferno," the "Jerusalem Delivered," and the "Paradise Lost;" from the "Ænead," the "Lusiad," the "Henriad," and all the others.

Accepting this view, still the bust of Homer will continue to stand upon its high pedestal. Say that the poem was the work of the minstrels, the Greek rhapsodists. Homer is to us their representative, the incarnation of their spirit; no longer a simple individual he becomes a type, rightly called "the Father of Poets."



PINDAR.

518-439 в.с.

GREATEST LYRIC POET.

PINDAR was born in a village near Thebes; he was a contemporary of Æschylus, and was in the prime of his age at the time of the Persian war. Of his parentage little is known with certainty. At thirteen he was sent to Athens to be educated, and was taught song-writing by the poets of his time. In his twentieth year he contested the prize for poetry at Thebes; at first unsuccessfully. Like the other lyric poets of his time, he travelled from village to village in Greece, offering his services for public or private ceremonies; but Athens was his favourite abode. He frequently visited Delphi, where, in later times, an iron chair was shown as the one he occupied when making his poetic offerings to the gods.

When the Persian invasion was at an end, Thebes, which had allied

itself with the Persians, was taken by the Athenians, and many of its leading citizens were put to death as traitors to Greece. Pindar took refuge at Syracuse, at that time the residence of many poets and philosophers, whom Hieron the Tyrant had gathered about him. Four years after, he returned to Thebes and appears to have remained there till his death, in his eightieth year.

The veneration of the Greeks for Pindar has surrounded his cradle and his tomb with legends, legends which at least attest that his countrymen considered him an essentially religious poet, loved by the gods for his piety. His faith has not the child-like simplicity of the early Greek poets. It is more grave and pure, and rises to general views; not limited to the worship of one sect, or to the special divinities of one village or temple. In patriotism he was equally liberal-viewed, and called himself a citizen, not of Thebes, but of Greece. He did not refuse to write odes for princes whom the Greeks called tyrants; but it must be admitted that he never praised other than honourable actions, and more often wrote good counsel than eulogy. The Greeks are unanimous in regarding him as the prince of lyric poets, and declared that he excelled in every branch of his art. Of all his works, accident, rather perhaps than their superior merit, has preserved to our time only his songs of victory; but these are sufficient to stamp his genius as one of the most original and striking in Greek poesy.

During a period of two centuries poets had abandoned epic recitals which were merely an echo of the past, and appealed directly to the living present, to the interests, sentiments, and passions of their contemporaries. This poetry, a poetry of maxims, was full of grave lessons, exhortations to combat, and praises of peaceful enjoyments of civilization. Dramatic poetry was in a state of transition, gradually disengaging itself from its primitive epic form, and approaching by successive steps the new form to be finally given it by the genius of Æschylus and Sophocles.

The merit and originality of Pindar lies in having united these two elements together—the axiomatic and the dramatic. Living as it were in a period of transition, he combined in the ode the wisdom of his predecessors with something of the interest and varied character of the drama. To Pindar, a song of victory was not a mere description of a hero of the Olympian games, and praises of his skill in the arena. He took the whole life of the man, and everything pertaining to it, his ancestry, and nativity, as a subject; an individual is not an isolated object, he belonged to a family, a city, a race.

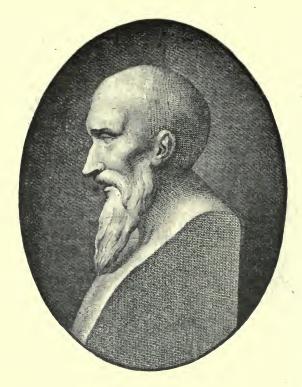
Thus viewed, the poet's choice of material became illimitable. He had all the theology, history, and traditions of Greece at his disposal, and used the victory merely as a centre of interest to give unity to his ode. The poet usually took some general moral idea inspired by the

actual events of the victory, an idea in harmony with the leading incidents in the life of the victor, and applied it in such a way as to serve as a lesson in prosperity, a consolation in misfortune, or an encouragement to goodness and piety. The idea supplied him with moral themes which he developed for the honour or instruction of his hero, tempering his eulogies with grave reflections on the instability of fortune, the fragility of human grandeur, and the omnipotence of the gods.

Pindar sometimes used simple and familiar language, but he had a taste for complex metaphors with subtle and obscure allusions, which require a mental effort to comprehend. He would place before his readers veritable poetic enigmas to sharpen their curiosity and develop a desire to solve them. The rhythmic and musical forms he gave to his odes appear to have been not less remarkable for their variety and excellence than the subjects themselves. Each song had its special tone depending chiefly on the nature of the rhythm and the musical style. The latter was divided into three classes:—Doric, Eolian and Lydian, easily distinguished, though each admitted innumerable variations. One of Pindar's commentators. Bæckh, has endeavoured to reconstitute the poet's rhythm, but the effort, though admirable, fails to reveal to us all the secrets of Pindar's harmonic skill.

"The causes which determined Pindar's poetical character, are to be sought in a period previous to the Persian War, and in the Doric and Æolic parts of Greece, rather than in Athens: and thus we may separate Pindar from his contemporary Æschylus, by placing the former at the close of the early period, the latter at the head of the new period of literature. The poems of Pindar show that he was penetrated with a strong religious feeling. He had not imbibed any of the scepticism which began to take root at Athens after the close of the Persian War."

"Near his own house at Thebes he dedicated a shrine to the Mother of the Gods. Often he was to be found in the temple of Apollo; there, seated in his iron chair, he sang his songs to the shining deity."



ÆSCHYLUS.

525-456 в.с.

FOUNDER OF THE DRAMA.—FIRST GREAT TRAGIC POET.

Before the time of Æschylus, there was no real theatre. Greek tragedy, as he found it, was simply a poem, recited or chanted by one speaker; it was declamation without action, scenery, or accessories of any kind. Æschylus introduced dialogue; invented the tragic boot, mask, and mantle; dressed the speakers in character; and turned the platform into a mimic representation of the place or scene where the event was supposed to occur.

What was the origin of the drama? Before there was such a thing in the world as "drama," there existed "chorus;" the drama grew out of the improvised recitations, given in the intervals of the Bacchic choruses sung at the great festivals. While the chorus rested, the leader chanted a long monologue in praise of Bacchus: this was the first stage

of development. In a later age a second person was brought upon the platform, who replied to the first, and this made "dialogue," and was the foundation of tragic art. Finally, another actor was added, and still others; the dialogue, which was at first but a recitative and an accessory, grew little by little till it usurped the principal place. In our day it employs many actors, while the whôle chorus, which was once all in all, has dwindled away, the only vestige of it remaining in what is now called the orchestra. The greatest step in the gradual change was the transition from monologue to dialogue, and this took place in the time of Æschylus.

That which in Æschylus chiefly strikes us is grandeur of idea. The solemn religious influences of Eleusis, the place of his birth, and those of that great political movement, the Persian war, are visible in his works. Before he was a poet he was a soldier. Born of a noble family, he distinguished himself at Marathon, Salamis, and Platæa; and it was on the field of battle, where his country was fighting against fearful odds for its very existence, that he drew the warlike inspiration of his muse. His play of the "Persians" brings the subject of that great struggle itself upon the stage; and his "Seven against Thebes" "breathed the spirit of Mars," and "every one who read it would long to be a warrior."

This is one of his chief works. Another, the "Prometheus Bound," perhaps his greatest, is of a religious cast, showing the wrath of the mighty gods against the unhappy hero, who had offended them by befriending man. The same is true of his last, the "Oresteiæ," that terrible story of the returning husband, Agamemnon, slain by the wife, Clytæmnestra; the son, Orestes, avenging his father's death, and for the deed pursued by furies; driven from land to land; till at last, in the good city of Athens, he finds rest, the furies for ever appeased, and from thenceforth called Eumenides, the soothed ones, foreshadowing in this the dawn of a milder age.

The poet survived his generation. For many years chief among Athenian poets, he was at last supplanted by the younger Sophocles, and withdrew to the court of the Tyrant of Syracuse, where he died. All will remember the legend of the eagle dropping a tortoise upon his traditionally bald pate, taking it for a rock. The artists of antiquity drew his portrait with the head entirely bare, yet wearing a long luxuriant beard tapering to a point, the features of the face full of beauty and manly vigour.

From "The Frogs" of Aristophanes, a play in which both Æschylus and Euripides are carica ured, we might be inclined to receive the idea that the former was of a haughty and irritable temper—the man of the stern old times, out of patience with the modern days so different from his own. In this play he is made to ask Euripides,—

"Answer me, for what ought we to admire a poet?"

Euripides answers, "For cleverness and instruction; and because he makes the people in the cities better."

Æschylus resumes: "And if you had not done this, but from good and noble characters have rendered them most knavish, what will you say you are deserving to suffer?"

Euripides replies that such an offence would be worthy of death.

The old man then breaks forth upon him,-

- "Observe what sort of men you received them from me; tall, noble fellows, and not citizens that shirk all state burdens, nor loungers in the market, nor rogues as they are now, nor villains; but breathing of spears and lances and seven-fold courage."
- "And by having done what, did you teach them to be so noble-minded?"
 - "By having composed a drama full of martial spirit."
 - "Of what kind?"
- "The 'Seven against Thebes.' Every man that read it would long to be a warrior."

The compositions of Æschylus have the peculiarities of all initiative works of art. If we compare them with any modern drama, we are amazed at the loftiness of the subjects, the extreme simplicity of the action, and the ruggedness of the style.

And yet he was a great artist. A great artist finding his art crude, and without rules, by the force of prodigious genius bringing it into organization, and giving it laws. Chorus is replaced by actors; the long monologue turned into spirited dialogue; the brutal representation of murder no longer takes place before the eyes of the spectators, but behind the scenes; rude speech rises to sublime declamation; a noble exterior is given to the actors by appropriate dress, increased height, and heroic gesture. For all this the Greeks have called him, "The Father of Tragedy."

CHRONOLOGY.

B.C.			4	Age	BC. A	lge
525	Born at Eleusis.				471 Visited Hieron of Syracuse;	U
499	First Exhibited			26	"Septem contra Thebas".	54
490	At Battle of Marathon .			35	468 Defeated by Sophocles; retired	
481	Gained his first prize .			41	to Syracuse	57
480	At battles of Artemisium	an	d		461 "Supplices"	64
	Salamis			45	458 Exhibited in Athens again; re-	
479	At Battle of Platæa			46	tired to Sicily; the "Ores-	
					teia"	
					456 Died at Gela	



SOPHOCLES.

495-405 в.с.

SECOND GREAT TRAGIC POET.

SOPHOCLES, one of the greatest of Greek poets, was born at the village of Colonus, in Attica. He received a liberal education, more especially in music and poetry, made rapid progress, and won many school prizes. At fifteen he was chosen to lead the chorus which sang the pæan after the battle of Salamis; and at twenty-seven boldly entered the lists to compete with Æschylus himself in the tragic drama, winning the prize.

This brilliant victory, followed by other successes, put Sophocles in the first rank of Athenian poets, more especially after the death of Æschylus; for his greatest rival, Euripides, though popular in Greece, was less a favourite with the Athenians. The latter, to signify their esteem for the poet, chose him several times as one of the ten magistrates or strategi

elected annually to govern the State; and, in company with Pericles, he took part in the campaign against the Island of Samos, which had revolted against Athens; but Sophocles was more poet than soldier, if we may believe his contemporaries. He is made to say at a banquet that Pericles had little esteem for his strategy.

Sophocles was married twice, and had two sons, who, if report is true, were not noted for kind-heartedness or filial love; yet the father was most amiable in disposition, and lived on terms of friendship with all his fellow-citizens, and even his rivals, Æschylus and Euripides. "He knew how to enjoy life and renounce pleasure no longer suitable to his age." He died at ninety, beloved and honoured.

Of the 113 plays attributed to Sophocles, seven only are extant.

"Antigone," a political tragedy, contrasts the rights of the State with those of the family. In this play, a king, Creon, refuses burial to a prince killed in fighting against his own countrymen. The warrior's sister, Antigone, performs the funereal rites, and is condemned by Creon to be imprisoned in a cavern, where she dies of hunger. The son of the king, Hæmon, is the intended husband of Antigone; he pleads unavailingly for her, and in despair commits suicide; his mother, Eurydice, dies of grief; and thus the king for his cruelty is punished by loss of both wife and child.

In the "Electra," Sophocles has taken the sombre legend of Orestes, and shown with incomparable talent the passions, sentiments, and motives which prompted Electra to become the instigator and accomplice of her brother in the murder of their father.

The "Trachinian Woman" has for a subject the death of Hercules, killed by the poisoned tunic sent him by his jealous wife, Dejanira. Here the poet has described the passionate feelings of the wife in a manner far superior to the rough sketchiness of Æschylus in his play, the "Oresteiæ."

"King Œdipus" is the story of a King of Thebes, condemned by fate to see his people die of pestilence for an unexpiated crime. He discovers that this crime is his own: he had unwittingly murdered his father and married his mother. He plucks out his eyes, which had so failed to guide him aright on the road of life, and flees into exile. The play is one of the best examples of the Greek drama.

"Ajax" exhibits a man punished by the gods for his excessive pride by fits of madness. He dies of shame at the thought of the unworthy acts committed while mad, and his death expiates his fault.

In "Philoctetes," there is a moral conflict between three characters, Philoctetes, Ulysses, and Neoptolemus. The latter refuses to go so far in duplicity as Ulysses has proposed, in order to persuade Philoctetes to return and assist the Greeks. The consequences are becoming serious, when the gods intervene and put an end to the strife. The art

of Sophocles and his knowledge of human nature are well displayed in this piece.

"Œdipus at Colonus" is a contrast to "King Œdipus." The poor blind exiled king has become a sacred object by virtue of his sufferings, and his presence alone brings happiness to the country that receives him. Finally he dies at peace with himself and the gods.

The distinguishing trait of the compositions of Sophocles is their unrivalled harmony. The elements of his dramas, as dialogue and song, the expression of familiar sentiments or of violent passion, are so artistically graduated, as to pass without shock from one extreme to the other, in a manner quite different from the rugged method of Æschylus. The latter may have been his rival in invention, and it is true that Shakspeare far excels him there. He does not, like Shakspeare, give a complete picture of life in its manifold phases, but takes a single idea, a typical character, and embodies in it all the essential elements of humanity.

His later dramas, especially, are written in a most elegant style; with concise and vigorous dialogue, and rich poetical sentiment. He is the Phidias of dramatic art. Sophocles was above all an Athenian poet, as compared with Æschylus and Euripides, who were Hellenic, and he represented the genius of his well-loved city in its most perfect form.

His teaching is the doctrine of Fate, as it was understood by the ancients, and of this he is the best exponent:—

"Fate is a dread power. If thou be wealthy, thou wilt not buy her off; if thou be valiant, thou canst not withstand her: if thou shut thyself within a tower, she will find thee out: if thou cross the sea in ships, she will overtake thee on the way. Whose contendeth against Fate, fighteth against fearful odds. Thou canst not shake off what load Fate shall have put on thy shoulder."

CHRONOLOGY.

B.C.		Age.	
495	Date of birth.		Samian war; "Antigone" 55-56
480	Exarchos at celebration	of	413 One of Probouloi after the
	battle of Salamis	15	destruction of Sicilian army 82
468	First dramatic exhibition	and	409 "Philoctetes" 86
	prize; "Triptolemus"	27	
440-	39 One of the strategi	in	401 "Oedipus Colonus."



EURIPIDES.

480-406 в.с.

THIRD GREAT TRAGIC POET

EURIPIDES, the last of the three great tragic poets of Greece, was born in the second decade of the fifth century. He was fifteen years younger than Sophocles, and ten years younger than Socrates, though not of Athenian origin, his parents being refugees, living upon one of the Greek islands. His early education was not favourable for the development of his talents. He was first trained as an athlete, then he studied painting. Finally, however, he began to pursue rhetoric and philosophy, and it was these two which formed his character and developed his talent; and in after years, when he had become devoted to tragedy, it was the spirit of these rhetorical and philosophical studies of his youth which shone through his compositions in marked contrast to the religious and martial spirit which animated the drama of Æschylus. We find in his plays the same scheme of the world as in the writings of Anaxagoras, and the same foundation

of morals as in the teachings of Socrates. He is often called the philosophic dramatist.

Notwithstanding the varied experience through which he had passed, he was but twenty-five years of age when he wrote his first tragedy. This piece, now lost, was unfavourably received by the public; and, in common with several others which shared the same fate, was afterwards re-written and altered by him. Then followed "Hecuba," "Orestes," "Medea," "Hippolytus," "Alcestis," "Andromache," and "Iphigeneia." The number of his plays is variously estimated at from seventy-five to ninety-two. Of these, there are eighteen complete tragedies, one satiric drama, and fragments of others still extant.

The philosophical studies of Euripides turned him against Greek mythology, and he treated the subjects he took from it in such a manner as to rouse the prejudices of the aristocratic classes. He stripped the gods of their ideal greatness, and reduced them to the level of men—a method which pleased the populace greatly. In delineating woman and the workings of strong passion, Euripides displays special excellence, and has also filled his works with neat quotable sayings applicable to all the phases of human life.

After a literary career of nearly half a century, he retired to Macedonia, much to the regret of the Athenians. Here, two years later, tradition says, he met a tragic death, being torn in pieces by the king's hounds when alone in the woods.

The names of Æschylus, Sophocles, and Euripides are always mentioned together. Of this most famous dramatic triad it is customary to call Æschylus the most sublime, Sophocles the most beautiful and perfect, and Euripides the most pathetic and human. It is the latter who has been taken as the model by all later writers of classic drama, the Romans, the Italians, the French, and the Germans. His two best known plays, "Medea" and "Iphigeneia," have been imitated again and again: the "Iphigeneia" of Racine and that of Goethe are familiar to all.

Professor Jebb calls Euripides the mediator between ancient and modern drama.

"Euripides was only fifteen years younger than Sophocles; but when Euripides began to write, it must have been clear to any man of his genius and culture that, though an established prestige might be maintained, a new poet who sought to construct tragedy on the old basis would be building on sand. For, first, the popular religion itself—the very foundation of tragedy—had been undermined; secondly, scepticism had begun to be busy with the legends which that religion consecrated.

"Euripides made a splendid effort to maintain the place of tragedy in the spiritual life of Athens, by modifying its interests in the sense which his own generation required. Could not the heroic personages still excite interest if they were made more real, if in them the passions and sorrows were portrayed with greater vividness and directness? and might not the least cultivated part of an audience enjoy thrilling plot, especially if written from the home legends of Athens?"

Thus Euripides marks in a striking manner the transition from the religious to the philosophic epoch; and it is in no wise the fault of the poet: it is the inevitable movement of art, which is forced to follow the march of the human mind. We may regard it as a progress rather than an alteration; or, at least, if there is a decadence on one side, there is then a progress on the other. Euripides had in effect discovered an unknown world, the world of the feelings; a new mine, the mine of the heart; and that discovery became the source of a most brilliant success.

One cannot deny to him the merit of being a grand painter of the human heart. It is by this that he stands, and by this that he must continue to please throughout all time—because he has traced the eternal sentiments of our being. His chief aim is to move; he knows the nature of human passions, and how to create the situations in which they are developed with the greatest force.

The following characteristic thoughts are from the writings of Euripides:—

"The tongue may swear and leave the heart unsworn."

"There is nothing worse than a bad woman, and nothing better than a good one."

"Politeness costeth not much, and may win for us a great deal."

"We teach our children many things, but too often do we pass by the

thing of most importance—good sense."

"In all states there be three classes: one that is rich, and lazy, and selfish; one that is poor, and jealous, and reckless; and a middle one that is ingenious, and thoughtful, and trustworthy; for while this latter bath something to win, it hath very much to lose."

"There be men that can prove black white, and, for a time, their cunning prospereth, but in the end it is found to be very foolishness, and the cunning man cometh to own with his neighbour, that honesty is

the best policy."

"Of everything there is satisty; so have I known men tired with beauty become enamoured of plain faces; and men used to luxury turn to peasant fare."

CHRONOLOGY.

	1ge	
480 Date of birth.		421 "Heracleidæ;" "Supplices" 59
455 First exhibited; "Peliades".	25	420-17 "Andromache" 60-63
441 First gained the prize	39	415 "Troades;" "Alexauder;"
438 "Cressæ;" "Alcmæon;"		"Palamedes;" "Sisyphus;"
"Telephus;" "Alcestis".	42	"Electra" 65
431 "Medea;" "Philoctetes;"		412 "Helena;" "Andromeda" . 68
"Dictys;" "Theriste".	49	408 "Orestes"
428 "Hippolytus"	52	406 Date of death 74
493 " Heenba"	57	



ARISTOPHANES.

444-380 B.C. GREATEST COMIC POET.

Four of the Greek poets are representative men. Homer stands for epic poetry, Pindar for lyric poetry, and Æschylus for tragedy. We have now to add for comedy the name of Aristophanes.

Of the life of this poet we have no particulars. We know that he began to be famous at Athens, as a writer, about the fourth year of her great war with Sparta, 427 B.C.; we know from a caricature in Plato that he was a convivial fellow, fond of pleasure, drank much wine, and, like many other Athenians, spent whole nights in witty conversation; and from his works we know that he was the greatest comic writer that ever lived. Not more than a third of the total number of his plays have come down to us, but every one of them is a masterpiece. Chief of these are—

"The Clouds," which ridicules Socrates and natural philosophy.

"The Knights," an attack on Cleon.

"The Frogs," a satire on Euripides, in which he is unfavourably contrasted with the elder dramatist, Æschylus.

"The Birds," in which we have represented a fine philosophical Eutopia; a model city, built by birds. It is called Cloud-Cuckoo-Town. In this play is found a curious cosmogony, and a highly interesting plan for laying out a city on scientific principles.

The "Acharnians," the "Peace," and the "Lysistrata," are three pleas

for putting an end to the civil war.

In "The Wasps," the poet satirizes the Athenian passion for lawsuits, and the popular mania for serving on the jury.

Finally, we have "The Female Parliament," a play representing an

exciting conspiracy of the softer sex to effect a social revolution.

In these compositions the audacity of the writer knows no bounds. He lampoons Aspasia, Cleon, Socrates, Euripides, and the god Dionysus himself; burlesques woman's rights, the model societies of the philosophers, and the courts of justice; denounces the war policy, and attacks popular education. His whole work is a burlesque upon all existing men and things. "The old comedy was an audacious and scathing satire of public men, and an attack on popular movements." The licence which the poet takes with the manners and customs, with the citizens, and even with the gods of Athens themselves, is not only startling, but seems to us at first incredible.

Aristophanes ever remains as the chief source of study for historians, and all who wish to bring before their mind a true picture of the time, the age of Pericles.

In regard to his portrait, the face of the antique bust is characteristic; the features are those of broad humour, yet without being in any sense simple or undignified. As we contemplate the face, we are led irresistibly to the impression that it is just ready to burst into an uproarious laugh. It is exactly the face we should expect to see belonging to the prince of jokers.

Concerning his character, several passages in the "Banquet" refer to him, and seem to throw a light upon the manner in which he was regarded at least by the philosophers. On taking his place at table, he is made to say—

"You speak well on this point, that we should by all means procure for ourselves an easy method in our drinking, for I am one of those who was thoroughly drenched yesterday."

A little further on, Socrates votes that each person in turn shall discourse on love. "Not a single man," he says, "will give a contrary vote. Not Agathon, nor Pausanias; nor would, I ween, Aristophanes, whose occupation relates to Dionysus and Aphrodite."

When it comes to Aristophanes' turn to discourse, it is found that either from repletion or from some other cause, a fit of the hiccups is upon him, and he is unable to speak; and he says to the doctor, who is reclining a little further down—

"You are the proper person either to stop my hiccups, or to speak in my turn."

The doctor promises to do both; tells the poet to hold his breath, and if this will not do, to gargle water; or if both these fail, he recommends him to tickle his nose till he sneezes.

"You will not say one word," replies Aristophanes, "till I do so."

It is hard to say whether the grotesque dissertation that shortly follows is mostly Aristophanes or mostly Plato; it seems a marriage of both, yet it is characteristic of the former: like his own creations, it is a piece of consummate art, and this is what we find in him throughout. Upon every page there is the unmistakable stamp of genius. He paints upon his canvas just what he wishes to paint, and does it so well that we assent to it and call it Nature. Even when the great and good Socrates is brought before us, held up in a basket, "walking in the air and speculating about the sun," we are forced to join in the laugh, and, worse, to applaud the wrong.

"The philosopher who wore no under-garments," says Mr. Cotton, "and the same upper robes in both summer and winter; who generally went barefoot, and appears to have possessed one pair of shoes which lasted him a lifetime; who used to stand for hours in a public place in a fit of abstraction; to say nothing of his snub-nose and extraordinary face and figure; could hardly expect to escape the licence of the old comedy."

It is reported that Plato, "the beloved disciple," sent to the tyrant of Syracuse a copy of "The Clouds" of Aristophanes, as the best expression of the state of things at Athens.

CHRONOLOGY.

B.C. Age B.C. 414 Born at Athens. 427 Gained second prize with gained second prize with	
427 Gained second prize with gained second prize with	
"Daitileis"	30
426 Exhibited "Babylonians" 18 411 "Lysistrata" and "Thesmo-	
425 Gained first prize with the phoriazusæ"	33
"Acharnians" 19 408 First "Plutus"	36
424 Gained first prize with the 405 Gained first prize with	
"Equites" 20 "Ranæ"	39
423 Exhibited first "Nubes" 21 392 "Ecclesiazusæ"	52
422 Gained first prize with the 388 Second "Plutus"	56
"Vespæ;" second "Nubes" 22 387 "Æolosicon" and "Cocalus"	
421 Gained second prize with the exhibited at Araros	57
"Pax"	64



MENANDER.

342-291 в.с.

PRECURSOR OF MODERN COMEDY.—SECOND GREAT COMIC POET.

Each of the two great centuries of Athens, the century of Pericles and the century of Alexander, had its picture of society: that of the former was called the old comedy, and its representative was Aristophanes; that of the latter, the new comedy, and its representative was Menander. We can form a sort of general though imperfect idea of the difference between the two, if we liken the old comedy to our modern burlesque, and the new comedy to our modern dramas, such as the "School for Scandal," and "The Rivals." The new comedy was the beginning of what are sometimes called society plays.

Menander was born at Athens, 342 B.C. His uncle, Alexis, was a dramatist of considerable repute in comedy, and apparently taught him the principles of his art at an early age. The philosopher and moralist,

Theophrastus, who excelled in delineation of character, was his master; but another philosopher, who exercised great influence over his early studies, was his friend and school-fellow, Epicurus. Though not a disciple of Epicurus, he imbibed the same philosophic principles, from the elegant and indolent society in which they lived, believing the chief end of life to be intellectual enjoyment, founded on material well-being, During the ten years that Athens was governed by the magistrate Demetrius, 317 to 307 B.C., the comedies of Menander, with their polished tone and lively mocking sentiments, were admirably suited to the tastes of Athenian society; but the fall of Demetrius provoked a reaction, and subjected Menander to violent persecution. have sought a refuge with Demetrius at the court of the Ptolemies in Egypt, and was flatteringly urged to do so, but he preferred to remain at Athens, fighting his way, multiplying his masterpieces—the number of plays attributed to him is about one hundred-and disputing the laurel crown with rivals but too often declared superior to him by the bad taste and injustice of his fellow-citizens. He was drowned while bathing at the port of Piræus, when fifty-two years of age.

In spite of his talents, Menander did not obtain from his contemporaries the position he merited. Of the hundred times that he competed for the prize, he was but eight times crowned.

Beaten when living by his unworthy rivals, who owed their success to intrigue rather than merit, posterity has avenged his memory, and given him the first rank in the new comedy, a position as incontestable as that of Homer in epos, and Demosthenes in eloquence. Grammarians, in fact, give him the second place among poets, after Homer; Plutarch highly praises him; all the Roman comic poets, Plautus, Cecilius, Terence, and Afranius, acknowledged him their standard; his plays were popular in the best society of Greece and Rome five centuries after his death, and even later, for it was not until the Byzantine priests obtained permission from the emperors to burn his works with those of Philemon and Sappho, that the plays of Menander disappeared for ever from the world. The fathers appear to have had less fear of the rude licence of Aristophanes, whose works remained untouched, than of the soft refinement and seductive verse of Menander.

It is from a study of his Roman imitators, that our knowledge of their master's dramatic skill has been gleaned. Among them, Terence borrowed four pieces out of six from Menander's works, not unfrequently repeating whole pages of text unaltered, a plagiary that led Julius Cæsar to call him a "half Menander."

Comedy may be said to have three elements—action, character, and manners. Aristophanes makes the action merely the poetical development of an idea; other dramatists make it a bond of union between short episodes, which are pictures of contemporary manners. The new comedy

made the action an intrigue, a series of incidents born of some fact in domestic life, gradually complicated and finally resolved. This intrigue, though simple, and becoming by frequent repetitions somewhat monotonous—for life among the ancients was less complex than among the moderns—served to bring the characters into play.

Menander was said to excel in the invention and arrangement of these intrigues; but it is probable that in this his rivals were his superiors. What the drama owes to him is its creation of characters. The good taste of the refined age in which Menander lived would not tolerate the gross sensualities of the previous century, and the young poets of the new comedy were obliged to paint vice and ridicule in general terms, instead of putting actual persons upon the stage. This gradually led to the formation of types; types moreover which, in a very short time, grew to be conventional: young lovers, light and dark; fathers, stern and complacent; mothers, kind and unkind; slaves, faithful and otherwise; and of maidens, a large assortment. Thus Menander put Athenian society upon the stage, but he gave it the common passions of the human race, the follies and vices which belong to all time; the father, the lover, the maiden, the wily slave, and the courtesan, are his most ordinary figures; but he has drawn men of all professions, and also all those morbid characters which make masterpieces-"the jealous," "the superstitious," misers, gluttons, misanthropes. The "Book of Characters," by Theophrastus, contains the sketches which Menander made portraits, giving them colour and life.

As before mentioned, along with this creation of characters there grew up what we call the intrigue or plot, a tangled web to be unravelled at the end. In this happy invention Menander joins hands with Euripides as one of the chief makers of dramatic art.

The antique statue of Menander in the Vatican, from which our portrait is taken, has preserved his features. The critics, Schlegel and Guizot, find in this marble a faithful image of his genius. "The head is slightly inclined and turned a little to the left; neither the wrinkles of age nor the anguish of pain have contracted the features; but habits of reflection have imprinted on the broad high forehead their austere sigus, while at the same time the mouth with slightly projecting lips gently pressed together by a suppressed smile, seems ready to transform into sharp epigrams the thoughts flitting through the mind. All the features breathe the easy confidence born of intimate self-knowledge and long experience of men, the grace of natural gaicty, and an indulgent spirit of mockery."

Menander often dwelt on the miseries of old age, and has epitomized his sentiments on this subject in the well-known saying, "Whom the gods love die young."



LUCRETIUS.

95-55 в.с.

MOST PROFOUND OF THE LATIN AUTHORS.—GREATEST DIDACTIC POET.

T. Carus Lucretius and Julius Cæsar were the only men of letters ever produced by Rome. Martha, in his monograph upon Lucretius, notes this fact, and adds, that the poet may have owed to the accident of his birth, and to the natural training received in the capital of the world, that singular freedom of thought rarely to be found outside a great metropolis. Voltaire was born a Parisian.

Lucretius was of high birth, coming of the renowned family which had given to the world a grand type of heroism, the virtuous Lucretia. Thus by his position he might have been a soldier and a statesman; but political honours were not in accordance with his desires; he was a student, a poet, a philosopher. His destiny was to live a "hidden

life," and to write a book—to live a life unknown, and to write a book that should be immortal.

Like other patrician youths of his century, Cicero and Cæsar, he must have learned all that was best in Greece. His favourite authors were Homer, Empedocles, Thucydides, and Epicurus; thus he was familiar with the first of her poets and the last of her philosophers; and his book, *De Rerum Natura*, on "The Origin of Things," was nothing else than a grand poetical synthesis of this last Greek philosophy.

In reading his work, we perceive the author's intense hatred of the superstition of paganism; his enthusiastic love of nature; his contempt for the snares of human passion, love, ambition, &c. Some find in it, too, a weariness of the world, ennui, that spiritual malady ever found where civilization has reached a high state. As a remedy for all ills, he proclaims the knowledge of the order of the universe—a philosophy of which the principles are certain, the philosophy of nature.

Concerning the ground principle of this system, the world's judgment of 1800 years seems in our own century in danger of being reversed. What was formerly called the logic of chance, now seems quite readily to lend itself to the formula of "the reign of law."

"The subject of the poem is, the Discovered Majesty or Order of the Universe. The cardinal truth that Lucretius proclaimed was, that creation was no result of chance, or of capricious exercise of power, but arose out of certain regular and orderly processes, dependent on certain primal conditions of which no further account can be given."

So it is at last settled that there is nothing new under the sun. At the outset of his work, Lucretius propounds his atomic theory—

"Primordial atoms of pure solidity, which composed of the smallest points cohere, not combined of a union of any other things, but rather endowed with an eternal simple and indissoluble existence, from which Nature allows nothing to be broken off or even diminished, reserving these primordial atoms as seeds for her productions."

Atoms are endued with weight and motion. "Some atoms," he says, "combine closely together and form dense bodies, others combine loosely and form thinner substance."

Here is his law of evolution -

"The infinite number of atoms moving through the infinite space composed infinite worlds, which are sometimes increased by others being added, and sometimes diminished and dissolved by the separation and departure of atoms."

Further on, we find his spontaneous generation-

"In the early age of the world, the earth spread over the hills the growth of herbs and the beauty of verdure. For as feathers and hairs and bristles are first produced over the limbs of quadrupeds,

and the bodies of the winged tribes, so the new earth first put forth herbs and trees, and afterwards generated the numerous races of animals."

Finally, he treats of the rudeness of the early life of man, the commencement of culture, the invention of the discovery of fire, and the growth of society. Previous to this he has given us his psychology—

"Imagination and thought are produced by means of images of things which penetrate the body through the senses."

The poet and philosopher had for a friend a popular politician of his day, and to him his book is dedicated. "The book has thus the form of a personal address to a friend. The repeated personal appeals give vivacity to the poem, and enable the reader to feel that he is not so much following a written argument, as listening to the eloquent voice of a living man earnest to express conviction."

Of the many recent critics and translators of Lucretius, no one has pronounced upon him so high a eulogium as Professor Sellar. From his work we take the following extracts:—

"Although his nature was of the fine Roman fibre; although deeply imbued with the philosophy of Greece, and, like all great thinkers, not free from the influence of his time; he was one of the most conspicuously original men which Rome produced: the man who, in thought and feeling, was most clearly above the range of his age and country."

"It is, however, in his devotion to truth, perhaps more than in any other quality, that Lucretius rises clearly above the level both of his countrymen and of his age. He thus seems to combine in himself what was greatest in the Greek and in the Roman mind,—the Greek ardour of inquiry, the Roman manliness of heart. He is a Roman poet of the time of Julius Cæsar, united with the spirit of one of the early Greek philosophers. He unites the speculative passion of the dawn of ancient inquiry with the rare observation of its meridian. The spirit and purpose with which Lucretius expounds the philosophy of nature, was to raise human life out of the ignorance and consequent misery of superstition. It is the constant presence of this practical purpose that imparts to his words that peculiar tone of impassioned earnestness of which there is no parallel in ancient literature."

"The passion of his whole intellectual and moral being was concentrated on the greatest subject of contemplation for the greatest practical object—the reformation of the world."



VIRGIL.

70-19 в.с.

NATIONAL POET OF THE ROMANS. - GREATEST PASTORAL POET.

VIRGIL was a man of rural life and of retirement. A magistrate's messenger possessed of a small farm near Mantua, let it out to an honest farmer, named Maro, and was so well pleased with his prudent and industrious tenant, that he gave him his daughter in marriage. Upon this humble farm, and of these parents, was born the boy destined to be the prince of Latin poets. His career offers a striking example of the force of early impressions. We see the image of the ruddy child running about on his father's farm; he is familiar enough with clouds and mountains, rivers and trees, and domestic animals, and with a simple and virtuous life: it is this scenery and this life that lay the foundation for the work of the future poet. His most perfect work is a return to these scenes of his childhood.

He had a good training in Milan and Naples; learned Greek rhetoric and Roman law, and formed a philosophy for himself—Stoic, Epicurean, and Platonic combined, eclectic—much like the belief of Cicero, Horace, and others of his century. His favourite masters were an Epicurean philosopher and a grammarian of the Alexandrian school.

At twenty-five, Virgil wrote short poems, of which nothing remains but the titles. At thirty appeared his first work of value, the "Bucolics." It appeared after the battle of Philippi, when half Italy had been partitioned out as spoil to the victorious soldiery, Virgil's own little patrimony sharing the fate of all the rest. Through the influence of Mæcenas, his farm had been restored to him. The first "Bucolic" is at once a thank-offering to his sovereign, and a plaintive description of the situation and sufferings of the exiles—

"Shall a ruffian soldier possess the cultivated fields?

No carol shall I sing, no more my goats, as I feed you, shall you browse

The flowery cytisus and bitter willows."

Throughout all the works of Virgil there runs a tinge of melancholy, which critics maintain is traceable to the influence of this important and disastrous event.

The "Bucolics" are a collection of idyls, imitating Theocritus. In the Augustan age, it was the custom with men of letters each to imitate a Greek model. Terence translates Menander; Lucretius emulates Empedocles; Phædrus repeats Æsop; Cicero is a would-be Plato; and Virgil begins as a Latin Theocritus, ending as a Latin Hesiod and a Latin Homer.

The "Bucolics," Virgil's youthful work, is an example of pastoral poetry, treating of the loves of impossible shepherds and shepherdesses. The "Georgics," his mature work, is an example of rural poetry, and presents to us true pictures of "country living and country thinking," in the capital of the world, thirty years before the Christian era. They are the poems of peace; they are suggested by Mæcenas, prime minister; it is intended that they shall mirror the calm and prosperous life of good Roman citizens, under the benign rule of the sovereign Augustus. The unsophisticated country poet, sober and pious, fills a place in the policy of that sovereign—Virgil becomes so to speak the official poet of the empire. Already he had sung the return of the golden age o'er all the world to arise when—

"The goats of themselves shall homeward convey their udders distended with milk, nor shall the herd dread huge overgrown lions."

It now becomes his congenial task to interest the people in those peaceful pursuits in which the Emperor desires them to be interested. The poet sings what he knows of farming: how to plough the soil, and what to plant in it; of the rearing of cattle, of the keeping of bees-

"Next I will set forth the heavenly gift, aerial honey.... First a seat and station must be sought for the bees, where neither winds may have access, nor sheep and frisky kids may trample down the flowers."

The keeping of bees was an important item in Roman husbandry.

The "Georgics" was finished at the point when Cæsar took the title of Imperator; the temple of Janus was closed, Rome was at her meridian. Then came to Virgil the idea to give his country a grand epic poem. To write a hymn to the glory of Rome, this was the end proposed. To imitate Homer and praise Augustus, these were the means. The result was a triumphant success; the work was fitted to the time and place.

In the eighth book of the Æneid, the poet makes the goddess present his legendary hero with a suit of armour. On the shield is represented the future glory of the Romans, a representation which is in actual fact a description of the greatest parade ever witnessed, a Roman triumph—

"Cæsar again having in triple triumph entered the walls of Rome, was consecrating through all the city three hundred stately temples, his immortal vow to the Italian gods. The streets rung with joy, and games, and acclamations; in all the temples are choirs of matrons, and in all the temples altars. Before the altars, the sacrificed bullocks cover the ground. Augustus himself, seated in the snow-white porch of shining Phæbus, reviews the offerings of the people, and fits them to the stately pillars. In long orderly processions the vanquished nations march, as various in their garb and arms as in their language. Such scenes the hero views with wonder, rejoices in their representation, and on his shoulders bears aloft the fame and fortunes of his descendants."

Virgil was tall, and probably slender, of delicate health, yet with a ruddy complexion, the fruit of his early life. Of a retiring disposition, he was in no sense a man of the world, seeking friendship rather than society, having the air and manners of a person country-bred, inclined to melancholy, with a natural terror of dissension and conflict—in all his works, war is held up as synonymous with misery.

In his life he is discreet; there is in his character something serious, a principle of elevation, noble and tender, of which we must never lose sight.

The qualities of the genius of Virgil have been thus summed up by Ste. Beuve: "Warm love of nature, love of poetry; respect for the great poets, and judicious imitation of their beauties; the erudition and science of the antiquary; patriotism, the pride of being a Roman citizen, humanity, piety, sensibility, and tenderness. But, above all, his principal characteristic and perfection is that sovereign quality which embraces in it, and unites all the others—a quality which appears also in the genius

of Raphael—unity of tone and colour, harmony, fitness of parts, proportion, and sustained good taste."

B.C.	Age	B.C.	Age
70 Date of birth.		40 Restored to his estates	 . 30
55 Assumed the toga virilis	. 15	37-31 "Georgica"	 33-39
42 Ejected from farm by soldiers o	f	27-20 "Æneid"	 43-50
Octavius	. 28	20 At Athens	 . 50
41-37 "Bucolica"	29-33	19 Died	 . 51



DANTE.a.d. 1265-1321.

POET OF THE MIDDLE AGES.

The idea of a living man entering the kingdom of the dead to record his feelings and experiences, or describe its awful mysteries to his fellow-men on his return to earth, is a tradition to be found, in more or less definite shape, scattered through the legends of the human race. Homer and Virgil have embodied the fantasy in their poems. It was the subject of scenic representations during the Middle Ages, while the paintings and sculpture of cloister and cathedral familiarized the faithful with the superstition. But it remained for the genius of Dante to collect the scattered details in existence before his time; and, by the light of his wide experience, his profound intelligence, his sufferings, passions, and prejudices, and the stirring incidents of his own period, to fuse them into a marvellous history of Christian faith, as it was understood and

DANTE. 33

interpreted by the Catholic Church, before its glowing colours had been toned down by the Reformation.

Dante Alighieri was born at Florence, in 1265, of an ancient family that lost one of its ancestors at the Crusades. There is much uncertainty as to the nature or extent of his early education; and it is a matter of conjecture whether he owed the vast crudition he has displayed in every branch of human knowledge to careful training in youth, or to his own extensive researches and patient studies in mature years. While still young, he conceived a Platonic passion for Beatrice Portinari—a passion destined to have a lasting influence upon his heart and genius. She became his ideal of beauty and perfection, to be translated into sonnets, songs, and ballads, a collection of which he published at twenty-six, under the title of "The New Life."

Dante took an active part in the political strifes of his native city; and in 1302, while on a mission to the Pope at Rome, was banished from Florence, his property confiscated, and he was even condemned to be burnt alive if he returned.

From this moment began for Dante "the slow, bitter, lingering death—the Hell of Exile—which none can know but the exile himself." He sought a refuge at Verona, then at Bologna, Padua, and finally at Ravenna. His wanderings, some authorities say, carried him even to Paris, and there for a time he studied theology. After many fruitless attempts he obtained permission, in 1315, to return to Florence; but it was coupled with such humiliating conditions that he refused to submit to them. In 1321 he died at Ravenna, where he had spent the few tranquil years of his unhappy wanderings.

Beatrice, whom Dante, it is said, scarcely knew personally, married young, and died at twenty-five. Some years after, Dante married Gemma Donati, who bore him six children; but the marriage was not a happy one. Boccaccio describes Dante as a figure of middle height, with noble and well-marked features, face long, nose aquiline, eyes large, under-lip projecting, complexion dark, hair and beard black, thick, and wavy. The expression of the eyes and mouth especially indicating profound and melancholy feeling. In all his relations he was modest and reserved, speaking rarely but with eloquent force. He was fond of female society, in which he showed much politeness and gaiety. Though simple in his manner of living, he bestowed considerable attention on his dress and general appearance.

After Dante's death a mask was taken, in plaster, of the face, from which terra-cotta busts were made, and his best portrait obtained. Here Dante appears with a long and pointed nose, slightly curved; the eyes are deeply sunk beneath strong evenly-arched eyebrows, with a deep wrinkle between them; the mouth has a spiritual and ironic expression, under-lip slightly projecting, with chin and cheek-bones somewhat pro-

minent. The whole head expresses intellect and vigour, strong will, and habits of meditation. Raphael painted Dante, after the mask likeness, in two of his principal works, and a large number of paintings, statues, and medals have repeated and familiarized his face until it has become one of the most authentic and best-known portraits in existence.

To an Italian, the life of Dante is summed up in one line,—he loved Beatrice and wrote the "Divine Comedy." This master-piece was the foundation of modern Italian. It was written by Dante in exile, circulated in fragmentary manuscripts during his life, and not published until after his death, either because he wished to perfect it by repeated emendations, or because he feared the vengeance of his enemies, who are attacked in it in a bitter and sarcastical spirit. Its three distinct poems, "The Inferno," "The Purgatory," and "The Paradise," describe punishment without end or hope, expiatory sufferings, and eternal felicity. Certain writers of our century find in them traces of a high moral purpose. "Dante was a sincere patriot," they say, and "frightened at the symptoms of decay visible in Christian society, he wished to save his compatriots, and wrote the 'Divine Comedy' to indicate the way of salvation."

The imposing structure of this triple poem, the prodigious variety of scenes it describes, and the local colour he has given them; the energy of some, the grace of others; their wonderful simplicity, their original and primitive type; give to the poem a place in literature, which neither its defects, nor the change of tastes that time has brought, can take away. It is a complete personification of the intense religious spirit of he Middle Ages, and fully justifies the title posterity has bestowed upon ts author, of the "Christian Homer."

A D.	Age	e A.D.		1	Age
1265	Born at Florence.	1301	Ambassador to Rome	on	
1281	Studied at Bologna and		behalf of the Bianchi .		36
	Padua 16	3 1302	Fined and banished		37
1289	At victory of Guelfs at Cam-	1304	Joined in unsuccessful atta	ck	
	paldino 2	1	on Florence		39
1290	Served in expedition against	1306	Visited Padua		41
	Pisa 25		Lived chiefly at Veron		
1294	"Vita Nuova" 29	9	visited Paris		43
1300	"Divina Commedia" com-	1313	Took refuge at Verona .		48
	menced; appointed Chief of		Went to Ravenna		
	the Priori of Florence 35		Died at Ravenna		



RABELAIS.

A.D. 1483-1553.

SATIRIST OF THE RENAISSANCE.

RABELAIS was the youngest son of an inukeeper in a small French town. At ten years of age he was put to school at an abbey, afterwards at a convent, and later, in accordance with his father's desire, he joined one of the Mendicant orders, and spent fifteen years in a monastery.

As a consequence of all this, two sentiments became deeply rooted in his mind, a love of letters, and a hatred of monks; his strong passion for literature, both ancient and modern, subjected him to violent persecution from his brother monks. He was suspected of eating forbidden fruit, his cell was searched, and they found profane works—Greek. His books were confiscated, and he was placed in confinement.

Other biographers assert that his imprisonment was due to the irreverent practical jokes he played on his companions.

In company with another monk, a fellow-prisoner for the same offence, he managed to escape. Some time later, he secured high influence, and, by the authorization of Pope Clement VII., turned Benedictine, and entered the Abbey of Maillezais. But his caustic humour and love of liberty rendered life in a convent intolerable, and he shortly renounced it altogether, and became a citizen of the world—not to say a vagabond.

In his wanderings he visited Rochelle, Bordeaux, Toulouse, Montpellier, Avignon, and Bourges, showing always a preference for university towns. At Lyons, 1532-1534, he practised as a physician, and lectured on anatomy, studied archæology, jurisprudence, and other sciences; edited works on a variety of subjects for the publishers of

Lyons, and even got out a series of almanacks.

All this scientific labour brought him less reputation than a grotesque romance, founded on a popular tradition of the time called, "The Inestimable Life of the Great Gargantua, the Father of Pantagruel," a work, he says, he wrote when eating and drinking, to amuse his patients; and more copies of which were sold in two months than of Bibles in nine years.

In 1534, a six-months' residence in Rome served to supply fresh material for his satirical pen, but he was sufficiently prudent to obtain from the pope, Paul III., absolution for past irregularities, and authority to practise medicine, and hold a benefice in the church.

His book obtained royal approbation; the Sorbonne vainly opposed it. It would seem to have been the destiny of Rabelais to be persecuted

by monks and theologians, and protected by popes and princes.

In 1547, the death of Francis I. exposed Rabelais to persecution, and he visited Rome for the third time. Later, he obtained permission from Henry II. to publish his works in Greek, Latin, and Italian; and in 1545 he was installed curé of Meudon, an office he seems to have filled with honour to himself, and to the satisfaction of his parishioners. He is said to have died here.

Rabelais assumed the mask of a buffoon, in order to attack with impunity the errors and follies of his time and his personal enemies. Much was pardoned in his writings for the sound, practical wisdom they contained.

Extravagant praises have been freely bestowed upon him. He resembles Aristophanes in his fecundity, liveliness, and license, Shakspeare in comic vein, has all the learning of Erasmus, the philosophical culture of Ficinus, the imagination of Ariosto, and the natural grace of Boccaccio.

Yet he is incomprehensible—his book an enigma. He is a chimera, with the face of a beautiful woman, the feet of a dragon—a monstrous compound of fine morality and gross corruption. Where he is good, he

is exquisite; where he is bad, he is past all endurance: in short, he is the Renaissance.

Burton, Swift, Sterne, and Southey, have all drawn inspiration from Rabelais.

A.D.		Age	A.D.		1	Age
1483	Born at Chinon.		1537 M.D. at Montpellier			54
1532	"Gargantua"	49	1545 Curé of Meudon			62
1536	Went with Cardinal du Bellay		1546 "Pantagruel"			63
	to Rome	53	1553 Died at Paris	,		70



CERVANTES.

л.д. 1547-1616.

AUTHOR OF "DON QUIXOTE"—THE GREATEST OF ROMANCES.

The celebrated Spanish poet and novelist was born at Alcala de Henares, Old Castile, in 1547, of a noble but poor family; and, after studying at the university of his native town, then of some reputation, he spent two years at Salamanca, living probably on the alms bestowed on the poor medical and law students of his time. Cervantes' life is a long and painful romance of ill-requited services, slavery, imprisonment, and lost illusions.

In 1568 he went to Italy as page in the service of a cardinal, a position little to his taste. The following year he changed it for that of a common soldier, and was severely wounded in the breast and left hand at the battle of Lepanto; his hand was amputated. Returning to Spain in 1575, the vessel was captured by Algerian pirates, and he and his

brother condemned to slavery. After three ineffectual attempts to get free, in one of which he narrowly escaped death, he was ransomed for five hundred crowns, and set at liberty in company with his companions in servitude.

Born poor, with a taste for poetry, the trade of soldier and six years of slavery had not much improved his worldly prospects. In 1584 he married a lady as noble and as poor as himself, and, resolving to live by his pen, he wrote comedies: not less than thirty were produced, but few of them exist. As Cervantes himself admits, he could not compete as dramatist with Lope de Vega, who was at this time the favourite of the Spanish stage. He published a number of romances and poems, none of which brought him fame or money.

From 1588 to 1592 he was an agent for naval stores at Seville; and, later, was imprisoned twice on the charge of misappropriating revenue funds—a charge of which he was afterwards acquitted. It was while in prison that, like John Bunyan, he wrote his one immortal work—"Don Quixote." The first part was published in 1605. At first it met with little success, but an anonymous pamphlet, entitled "Busca Pie," said to have been written by Cervantes himself, declaring the work to be an attack on high persons of the court, had the intended effect of awakening public curiosity, and four editions were published the first year.

Notwithstanding this sudden popularity, the author appears to have remained in poverty. Eight years afterwards, 1614, a spurious second part to "Don Quixote" was brought out by one of his enemies; it was a wretched rhapsody of revolting grossness, devoid of interest and monstrous in style, accusing Cervantes, "a miserable old cripple," of being a blusterer and scandal-monger. Cervantes replied to this:—

"I am not responsible for my grey hairs, and as for my crippled arm, that I got on the field of battle, not in a tavern brawl."

In 1615, Cervantes demanded permission to publish a true second part to his "Don Quixote." The Censors of the Inquisition raised objections and tried to pick a quarrel with him on account of a phrase of Sancho Panza's, relating to works of charity, but the permission was eventually given. The author, however, still remained poor. At the end of all his resources, disabused of all his illusions, he entered the congregation of the Third Order of St. Francis, and died shortly after.

"Don Quixote" has been translated into every language; it has no rival, nor had it a model; it was the first of its kind, a strictly original work. Manners have changed, the ridicule of the Author's time has grown old and given place to the absurdities of a later date, still the Hero of la Mancha excites the interest of readers in every country, of every class, of every age. Who does not feel an interest in this fantastic hero, a grave, profound, generous, exalted ideal, yet never over-

stepping the bounds of nature,—and his broadly-contrasted Squire Sancho, with his coarse naïveté, animal nature, and positive dogmatism? The work is thoroughly good, the characters are new and well-sustained, the observations just as well as ingenious, the witticisms natural, and the descriptions painted with the highest skill. Of its faults, it may be said they are the faults of humanity not of the Author.

Poor Cervantes, who had so little honour from his countrymen when living, became the glory of Spanish literature when dead. Parish, convent, and public archives have been dug into to find the exact place of his birth and the least particulars relating to his life, while a magnificent edition of "Don Quixote" under royal auspices, on superb paper, with new type and rich engravings, has been published to make amends for the blind injustice that let him die in poverty and obscurity.

A.D.	A	lge	AD.	ge
1547	Born at Alcala de Henares,		1585 Settled at Madrid	38
	New Castile.		1588 Removed to Seville 4	11
1569	Page to Cardinal Giulio Ac-		1605 First part of "Don Quixote" &	58
	quaviva	22	1613 "Novelas Examplares" 6	36
1571	Wounded at Battle of Lepanto	24	1614 "Viage al Parnaso" 6	37
1575	Carried to Algiers by pirates	28	1615 Second part of "Don Quixote" (38
1580	Released	33	1616 Died at Madrid 6	39
1584	"Galatea" published	37		



SHAKSPEARE.

A.D. 1564-1616.
THE PRINCE OF POETS.

Or the greatest of poets, the briefest biography. John Shakspeare, retired shopkeeper, bailiff and alderman of Stratford, was the father of five children:—William, Gilbert, John, Anne, and Richard. The mother, Mary Shakspeare, was granddaughter of a valet-de-chambre to Henry VII. This was the Shakspeare family. The children were sent to the town school, where they learned something of Latin and a little Greek. It is of the eldest boy alone, however, that we have anything further to record.

· At seventeen, William married a lady eight years his senior. Shortly after was born his first child, Susannah; and one year later, twins. These were his last children. The young husband suddenly quitted Stratford, came to London, and joined a troupe of actors. In this ven-

ture he was not unsuccessful, for it is known that he very soon held a share in the Blackfriars Theatre.

At this point his real history begins. Let us sum up, according to the most probable conjecture, the life of "the greatest man the world e'er saw," in four decades.

At twenty, he had written the "Venus and Adonis;" at thirty, "Titus Andronicus," and the "Comedy of Errors;" at forty, "Romeo and Juliet," the "Merchant of Venice," the "Merry Wives of Windsor," and those strange revelations, the "Sonnets;" had built a new theatre, and brought out "Hamlet." At fifty, he had produced "Macbeth," "King Lear," "Julius Cæsar," "Antony and Cleopatra," and "The Tempest;" had purchased the best house in Stratford, had disposed of his daughter in marriage, become a grandfather, and had quitted the profession with an income of five hundred pounds a year.

Two years after this he died of a fever, and was buried at Stratford.

Seven years afterwards appeared the first edition of his plays.

Shakspeare was a handsome, well-shaped man, with eyes of a light hazel colour, and hair and beard of auburn hue; "very good company, and of a very ready and pleasant and smooth wit."

It is doubtful whether he ever sat for a portrait. Whatever exists of him was probably drawn from memory. The most authentic likeness is said to be the bust upon his tomb at Stratford, yet this was made seven years after his death. Of this statue it is said, "The contour of the head is very fine; the lips are carefully carved, the nose slightly curtailed."

Next comes the portrait engraved at the head of the folio edition, and this has in its favour the testimony of Ben Jonson.

While the best known, unquestionably, is the Chandos, the magnificent oil painting now displayed at the South Kensington Museum.

Still more highly idealized is the Jansen portrait. Of this portrait, alleged to have been painted by Jansen, for the Earl of Southampton, from life, it has been observed:—"Nothing can more distinctly embody our conceptions of Shakspeare. It is extremely handsome; the forehead elevated and ample, the eyes clear, mild, and benignant; the nose well-formed, the mouth closed, the lips slightly compressed, the hair receding from the forehead, as of one who will soon be bald; the beard gracefully disposed, and a very neat lace collar thrown over such a dress as the Poet might be supposed to wear. Indeed, at this period the Players in general are censured for being splendidly dressed in silks and satins."

Probably, when all the evidence both internal and external is weighed, we may safely accept the following conclusion: the Jansen is the ideal Shakspeare, the folio print is the real Shakspeare.

Such was the man of whom there have been written—not volumes, but libraries.

His favourite books were Plutarch and Montaigne; his hero was Julius Cæsar; his aversion was the Puritan spirit; his greatest creation was "Hamlet,"

The peculiar quality of his mind has been expressed in three words—a complete imagination.

In reality, that which we think of, first and last, in connection with Shakspeare, is his creation of characters. Taine in his "English Literature" groups them into five classes: brutes and idiots, like Caliban, Ajax, Cloten, Polonius, and the Nurse; people of wit-like Mercutio, Beatrice, Rosalind, Benedict, the Clown, and Falstaff; women -Desdemona, Juliet, Miranda, Imogen, Cordelia, Ophelia, Volumnia; villains - Iago and Richard III.; characters of an excessive or diseased imagination-Lear, Othello, Cleopatra, Coriolanus, Macbeth, Hamlet. All these he finds united in their Author. "Go through the groups, and you will only discern in them divers forms and divers states of the same power: here the flock of brutes, dotards, and gossips made up of a mechanical imagination; further on, the company of men of wit, animated by a gay and foolish imagination; then the charming swarm of women, whom their delicate imagination raises so high, and their selfforgetting love carries so far; elsewhere, the band of villains, hardened by unbridled passions, inspired by the artist's imagination; in the centre, the mournful train of grand characters whose excited brain is filled with excited or criminal visions, and whom an inner destiny urges to murder, madness, or death. . . . An opera without music-a concert of melancholy and tender sentiment, which bears the mind into the supernatural world, and brings before the mind, on its fairy wings, the genius which has created it."

A D.		Age	A.D. Age
1564	Born at Stratford-on-Avon.		
1582	Married	18	and "Merchant of Venice,"
1586	Went to London	22	previous to 34
1589	Actor and playwright at		1601 "Twelfth Night" 37
	Blackfriars Theatre	25	1602 "Hamlet" 38
1593	"Venus and Adonis"	29	1604 Retired to Stratford 40
1594	"Rape of Lucrece"	30	1607 "King Lear"
1597	Purchased "New Place,"		1611 "Tempest" 47
	Stratford	33	1616 Died at Stratford 52



MILTON.

A.D. 1608-1674.
POET OF THE PURITANS.

MILTON was born in London. His father, whose conversion to Protestantism had cost him his fortune, had embraced the profession of notary, and by incessant activity had acquired a competency sufficient to place the family in comfortable circumstances, and to give the son a sound education by a good tutor under the paternal roof.

The boy's first preceptor was Thomas Young, a man whose religious austerity exercised a great influence upon the mind and destiny of his pupil. Study shortly became a passion for the ardent young spirit; and already in early years we perceive the germs of that double exaltation, poetic and religious, which was to stamp the character of his genius.

The romances of Chively, the heroic poems of Homer, Virgil, and Dante, and the Bible, were his choice in reading. They became pro-

foundly engraved in his memory, and were always the favourite sources from which he drew his inspirations.

At sixteen he was sent to Cambridge, at which place he became noted for his verses and his erudition, was made Master of Arts at twenty-four, and had thoughts of becoming a clergyman. This step, however, his love of liberty would not permit him to take. He decided to devote a few years to enlarging the circle of his acquirements. Already he read Homer, Virgil, and Dante in their own language; he now learned Hebrew, so as to read the Bible in the original text, but his time was chiefly given to the study of the best Greek and Latin authors. It was at this period also that he composed his best miscellaneous poems—"Comus," "Lycidas," &c. After the death of his mother, in 1637, he resolved to complete his knowledge by making the grand classical tour.

He visited France, and was presented to Grotius. Arriving in Italy he went first to Pisa, then to Florence. Several times he saw Galileo. From Florence he went to Rome. Here he had access to the splendid Vatican Library; here he contemplated the walls of the Sixtine Chapel, covered with the frescoes of Michael Angelo—saw the Madonnas of the divine Raphael, saw his Transfiguration, and the Loggie, that extraordinary work—the whole Bible translated into pictures. Here also he saw the Miracle Play of the "Disobedience of Adam and Eve."

Already to his mind came the ideas of the "Paradise Lost."

But Milton was not all poet. Trouble fell upon England in 1639. Milton was now thirty, the age of intellectual virility; he had a profound erudition, extensive knowledge fortified by travel and the contemplation of art. He felt himself ready to take a part in the coming struggle. He threw himself into the mêlée, launching his first bolt, "Reformation in England." He followed it by "The Prelatical Episcopacy," and "Church Government against Prelaty."

"How to solder, how to stop a leak, how to keep up the floating carcase of a crazed and diseased monarchy or state betwixt wind and water, swimming still upon her own dead lees—that now is the deep design of a politician. . . .

"Of this third and last sort that hinder reformation. . . . What they can bring up now from the schools of Loyola and the Jesuits, or their Malvezzi, that can cut Tacitus into slivers and steaks, we shall presently hear."

The blow struck home; it created the celebrated remonstrance of the Long Parliament. That document was a paraphrase of Milton's pamphlets.

Four years from this time Milton married. The union was not happy; we find the wife returning to her parents, and the husband writing pamphlets in favour of divorce. Afterwards he took a "noble revenge" in

sheltering the deserted wife with all her family, who were Royalists, from the dangers of the democratic faction.

In the years 1651-52 we see him justifying in other pamphlets the execution of the King, and defending the people's cause. He becomes Cromwell's secretary, and achieves the summit of a political reputation. The political prose writings of the author of "Paradise Lost" form six thick octave volumes. On the death of Cromwell the veteran made a last appeal in favour of the dying Republic.

In 1660 Charles the Second entered London in triumph. Milton was incarcerated as an accomplice of regicides, yet liberated by the exertion of a brother poet. The rest of his life was passed in retirement. It was then, when full of years, that he produced the "Paradise Lost," "Paradise Regained," and the "Samson." All know of his troubles and infirmities, of the tender care of his two daughters. To his contemporaries the old man was not the poet, but the political pamphleteer, the statesman and friend of Cromwell.

"What! you let the villain go unpunished?" asks the Duke of York of Charles the Second.—"He is punished enough," replies the easy monarch; "he is poor, old, and blind."

In person Milton was of middle height, well-built, muscular, and compact, a swordsman, his gait erect and manly. He had a ruddy complexion, long brown hair, eyes grey and vivid; he was musical, being a singer, and a performer on the organ and bass-viol.

In later years he retired at nine, and rose at five, and dined at one. One of his favourite virtues was abstinence in diet.

"In his whole deportment there was a certain dignity of mind, a something of conscious superiority, which could not be at all times suppressed, or wholly withdrawn from observation."

A.D. Age	A.D. Age
1608 Born in London.	1645 "L'Allegro" and "Il Pense-
1620 Went to St. Paul's School . 12	roso " 37
1624 Entered Cambridge 16	1618 "Tenure of Kings and Magis-
1628 B.A 20	trates" 40
1629 "Ode on the morning of	1619 Latin Secretary to Council of
Christ's nativity " 21	State; "Eikonoklastes" . 41
1634 "Comns" written 26	1650 "Defensio Populi Angli-
1637 Travelled in Italy 29	cani" 42
1638 "Lycidas"	1654 Second "Defensio Populi
1641 "Reformation in England;"	Anglicani; " becomes blind 46
"Prelatical Episcopacy;"	1659 "Civil Power in Ecclesiastical
"Reason of Church Govern-	Causes" 51
ment" 33	1667 "Paradise Lost" 59
1642 "Apology for Smeetymnus" 34	1670 "History of England" 62
1644 "Tractate on Education;"	1671 "Paradise Regained;" "Sam-
"Areopagitica;" "Doc-	son Agonistes" 63
trine and Discipline of	1673 "Treatise on True Religion" 65
Divorce" 36	1674 Died in London 66
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MOLIÈRE.

A.D. 1622-1673. GREATEST FRENCH DRAMATIST,

The Comic French Dramatic Poet was born in Paris in 1622, the eldest of ten children. His father, Jean Poquelin, was an upholsterer in the service of the King, and intended his son should follow the same profession; still he appears to have given him an excellent education at the College of Clermont. As in the case of so many other famous men, little is known of his early life. The popular histories of Molière are said to be false. As an example, it is said that at fourteen Molière could scarcely read or write, and that he owed his education to the influence of his grandfather, who frequently took him to the theatre, and obtained permission to send him to college.

One thing is certain, Molière had a thorough tutor in the person of Pierre Gassendi, that man of liberal education who so early set himself in opposition to the dogmatic authority of Aristotle, and to Descartes' theory of innate ideas. There is nothing, he asserted, in the mind but what the senses have put there; and the duty of a true philosopher is, not to swear by authority, however great, but to pick and choose for himself from the best. The Epicurean doctrine. There can be no doubt Molière owed his independent judgment and sarcastic vein to the influence of this man. "From his master," says Sainte-Beuve, "he took, not the atoms nor the system of his philosophy, but its spirit."

After leaving college Molière appears to have followed his father's profession a short time, then studied law and theology; but he ended by joining a troupe of strolling players—lured on, it is said, by the blandishments of a pair of pretty eyes, part of the properties of an actress, Mademoiselle Madeleine Béjart. With this troupe he travelled about France for twelve years (1646 to 1658), assuming the name of Molière, which he added to his own, Jean Baptiste Poquelin. During this time he wrote for his company many little pieces in the style of the Italian farces and interludes, and attempted one tragedy. This proved a lamentable failure, and taught him a lesson as to the true path to follow.

In 1658, through the influence of a former fellow-student, he obtained permission to open a theatre in Paris, under the patronage of the King; and during a period of less than fifteen years he wrote more than thirty comedies, half of which still remain the masterpieces of the French stage.

Here, beneath the approving glance of the great Louis, he brought out his "Hypochondriac," his "Misanthrope," his "Miser," his "Hypocrite," his "Parvenu," his "Blue Stockings"—all masterpieces of French ridicule. Ever seeking out vice but to scourge her, he offended all classes of society; but he pleased the King, and the King was the State. Yet the Academy did not open its doors to the great genius; and he was excommunicated by the Archbishop of Paris, and deried a Christian burial.

In 1662 he had married Armande Béjart; he being forty and his wife eighteen. She was the sister of his old love, Madeleine. The disparity of their ages subjected him to ridicule, and gave him fits of jealousy, which were by no means without cause. Ten years later he died suddenly, attacked by hemorrhage of the lungs whilst playing a part in one of his own pieces. By command of the King, to whom Madame Molière had appealed, permission was given to bury the body in the cemetery of St. Joseph. This was effected at night, in the presence of a few friends.

Molière had three children, one of whom, a daughter, survived him, but died childless.

In person the dramatist was tall and well-formed. He walked gravely,

and with serious mien. His features were peculiar—the nose and mouth large, the lips thick, the complexion brown. His eyelashes were heavy and black, and by their mobility he could give his face a very comic expression.

Critics compare Molière with Shakspeare, and find him not unlike in position, character, and qualities. No modern poet equals these two in knowledge of men and motives. On the other hand, he is compared with Dante; and here is found a contrast, yet an analogy. Dante is the artistic representative of tradition and dogma; Molière is the artistic representative of something which is its opposite. What Dante has done for the Catholic traditions of the Middle Ages, Molière has done for the universal precepts of common sense. "He has seized everywhere the features which serve to form a complete picture of human life."

To know him is to hate hypocrisy, fanaticism, and intolerance, and recognize pedantry and false wit at a glance—to be above the deception of fine-drawn expressions, and the painted graces of an artificial style. Hypocrisy he especially detested, and lashed it without mercy in all its varied forms, wherever he found it. It is to Molière, more perhaps than to any other writer, that the French language owes its tendency to run into apt sayings—the small change of conversation—which has made it the favourite language of polite society.

A.D. Age	A.D. Age
1622 Born at Paris.	1662 "École des Femmes" 40
1636-41 Studied at Collège de	1663 "Critique de L'École des
Clermont 14-19	
1642 Attended Louis XIII. to	1666 "Misanthrope;" "Médecin
Spain 20	
1653 "L'Étourdi" 31	
1654 "Dépit Amoureux" 32	
1658 Presented to Louis XIV 36	1670 "Bourgeois Gentilhomme". 48
1659 "Précieuses Ridicules" 37	
1660 Settled at the Palais Royal . 38	1673 "Malade Imaginaire" 51
1661 "Ecole des Maris" 39	1673 Died at Paris 51



GOETHE.

A.D. 1749-1832.

"GREATEST INTELLECTUAL POWER OF OUR AGE."

John Wolfgang Goethe was born at Frankfort-on-the-Main in 1749. Accustomed from infancy to a life of ease and comfort, his youth was not, like that of many of his compeers, a struggle for mere existence; but a tranquil, studious home-life, with a mother, for whom he felt the strongest affection, to assist and encourage him; to which a stimulus was added in the respect and awe inspired by his father. When, at sixteen, he was sent to the University of Leipzig, Goethe was already a linguist. Not only could he read Sophoeles and Ovid in the original, but had also learned sufficient Hebrew to study the beauties of the Bible in the Hebrew text; he had made fair progress in English; and from Racine he had been accustomed to recite passages from childhood.

After three years' study at Leipzig, he went to Strasburg, to qualify

himself for the law, in obedience to the wishes of his father. Here, whether neglecting his law studies or not, he certainly found time to indulge his tastes in cultivating literature and the fine arts. Strasburg Cathedral singularly interested him, so did the town, the Rhine, the Black Forest, and indeed the whole neighbourhood, which became, in his youthful imagination, a "poetic paradise." In 1771, when twenty-two years of age, he took his degree as Doctor of Laws, and left Strasburg for Wetzlar, then the seat of the Imperial Chamber of the German Empire—ostensibly to gain experience in law, but in reality to continue his erratic studies in whatever subject interested him. In 1772 he returned to Frankfort, and remained at home four years. It was during this interval he began the publication of his earliest successful works. His first dramatic essay, "Götz von Berlichingen," drew instant attention, by its granid ideas, profound sentiments, natural vigour, and its bold defiance of French criticism and the three unities.

The romance of "Werther," which followed "Götz," threw all Germany into a ferment, and made him at once a literary lion. Translated into many languages and dramatized, commentaries, imitations, and even parodies, attested its popularity. His admirers demanded with insistence that he should continue in the same strain. "Heaven forbid," said Goethe afterwards, "that I should ever find myself in the state of mind requiring the composition of another such work."

A drama called "Stella," written in 1775, paints another love adventure at Strasburg. Goethe made every incident of his life, when it could be artistically treated, the basis of a play or story. After writing "Werther" Goethe hesitated long in deciding what career he should adopt, and, finally, accepting an invitation to Weimar, went there in 1775 to reside permanently.

Here for eleven years he lived at the Ducal court, loved the Frau von Stein, and made discoveries in science—the intermaxillary bone in man, the metamorphosis of plants, many facts in relation to colour. He held it to be an axiom, that "the law of unity presides in the structure of all living bodies." In his work on the "Metamorphosis of Plants" (1790), Goethe applied this principle to the vegetable world, to show that a flower is developed from a leaf by a series of gradual changes—a theory which has now become an accepted truth.

In 1786 a visit to Italy gave fresh impetus to Goethe's literary and poetic instincts. He visited Rome, Naples, Florence, and Sicily, drawing inspiration from all he saw. The influence of this voyage seems impressed on all his after labours. At Rome he terminated his play of "Iphigenie," that "marriage between the religious philosophy of Germany and the ancient Greek tragedy." "Egmont" followed "Iphigenie," and "Tasso" appeared in 1790.

Perhaps the most interesting period in Goethe's life is between 1794

and 1805, during his intimacy with Schiller, the poet. This friendship proved very useful to both—it gave a stimulus to their literary activity. While Goethe, without wholly renouncing the drama, applied himself especially to romances and epic compositions, Schiller, during these eleven years, composed his finest tragedies. "Wilhelm Meister," a work Goethe had commenced long before, was now completed; so was the first part of "Faust;" and "Hermann and Dorothea" was published in 1797.

Wilhelm Meister is a young merchant whose ambition it is to be an artist, and who pursues this illusive calling through many changing adventures, until he finally discovers his real vocation to be the practice of "It is a work full of subtle and profound analysis, with admirable descriptive scenes." The episode of Mignon is one of the finest poetic creations of modern literature. Though this work may be considered the result of Goethe's reflections and sentiments over a period of forty years, still it lacks the earnestness, passion, and dramatic interest which gave "Werther" such a remarkable popularity.

If the "Meister" is in some sense unsatisfactory, his next work makes up the deficiency. The "Hermann and Dorothea" is a marvellous union of grace and grandeur—the picture of the pure and simple life of a German village girl, a dream of the golden age, appearing in Europe just on the eve of the mighty political changes produced by the French Revolution. In German hands this poem has become a complete commentary on the philosophy of art.

Five years later-two years after the death of Schiller-was published Goethe's masterpiece, "Faust." "For more than thirty years this work had been growing in the author's mind." Part of it had been written in his visit to Switzerland; the general idea had been conceived when a student at college. "The peculiarities of a man's organization and education," says Lewes, "invest certain subjects with a charm and a significance. Such was 'Der Freischütz' for Weber; the 'Maternity of the Madonna' for Raphael; 'Faust' for Goethe. Thus it is that a fine subject becomes its marble, out of which a lasting monument is carved."

As years increased with Goethe, his literary activity, instead of diminishing, increased with them. "Never hastening, never resting," was his motto. He worked till the last hour, and died sitting in his chair. His last moments are thus described by Lewes :- "Ottilic sat beside him, holding his hand in both hers. It was now observed that his thoughts began to wander incoherently. 'See,' he exclaimed, 'the lovely woman's head, with black curls in splendid colours, a dark back-ground.' Presently he saw a piece of paper on the floor, and asked how they could leave Schiller's letters so carelessly lying about. Then he slept softly. . . . The last words audible were, 'More Light!' The final darkness grew apace, and he, whose eternal longings had been for more light, gave a parting cry for it as he was passing under the shadow of death."

One of the distinctive characteristics of Goethe's genius was his insatiable curiosity in every branch of human knowledge. His life was equally divided between science and art—between the poetry of the heart and the keenly observant spirit of an enthusiastic lover of nature. He was so versatile, so many-sided, he did so many things well, and initiated so much, that it is difficult to say in what he was greatest. His "Götz von Berlichingen" founded the romantic school; "Werther" founded the sentimental school: the "Metamorphosis of Plants" is one of the pillars of Darwinism; and in the third act of "Faust" critics have discovered the "foundation of a creed." It is not possible to read one of his works without learning a lesson of life. We try to sum it all up by calling him "The greatest intellectual power of our age."

A.D.		Age	A.D.		Age
1749 Box	n at Frankfort-on-the-Main	1.		"Versuch die Metamor- phose der Pflanzen zu Erk-	0
				phose der Pflanzen zu Erk-	
1768 Re	turned to Frankfort	19		lären"	41
1770 En	tered Strasburg University	21	1791	Director of Court Theatre,	
1773 " G	ötz von Berlichingen".	24		Weimar	
1774 "L	eiden des Jungen Werther;"		1794	"Wilhelm Meister's Lehr-	
	visited Switzerland			jahre"	
	tled at Weimar	26	1797	"Hermann und Dorothea".	48
1777-78	Visited the Harz and			Married	
	Berlin 28			"Farbenlehre"	
	ivy Councillor			"Dichtung und Wahrheit".	
	Travelled in Italy; "Eg-		1821	"Wilhelm Meister's Wander-	
	nont" 37			jahre"	
	phigenia auf Tauris"		1827	Knight of Grand Cross of	
	t Schiller			Bavaria	
	sited Italy again; "Tor-		1832	Died at Weimar	83
Ç	quato Tasso;" "Faust;"				



SCOTT.

A.D. 1771-1832.

FOUNDER OF THE HISTORIC NOVEL.

SIR WALTER SCOTT was born at Edinburgh. His father held a government office, and his mother was the daughter of a distinguished physician. The Scott family had taken an active part in the Border Wars; and the traditions of those troublesome times, preserved in ballad and story, made a strong impression on the young poet's imagination. Lame from childhood, his parents sent him into the country for the benefit of his health, where he developed a taste for reading books of all kinds, more especially romances and poetry, and tales of chivalry.

At school his masters had not a high opinion of his capacity, as he was somewhat dull in classical studies; but his fellow-students admired him for his talent in story-telling. His thirst for reading led him to study modern languages, and he learned French, German, and Italian,

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sufficiently well to read romances in them. On leaving college he adopted the law as a profession (1792); but the theatre, clubs, literary society, and reading, absorbed much the greater part of his time. His vacations he spent in travelling through highland and lowland, making himself familiar with places, types of character, traditions, ballads, faces, and the manners of the people he has so well described in his stories.

In 1799 he obtained the place of Sheriff to the county of Selkirk. and later, 1806, that of Clerk of Sessions; one of them he held for twenty years, and the other until his death. Together they brought him an income of 1600l. a year. It was, however, from literature that Scott was destined to acquire fortune and reputation. Setting aside some earlier works which met with little success, his songs of the Scottish Borders (published in 1800-3) first drew attention by their graceful blending of antiquarian knowledge with imagination, a characteristic of the author's genius. The literary life of Scott may be divided into three parts:-First, when he established his reputation as a poet; this extends from his translations of Bürger, in 1796, to the publication of "Waverley," in 1814. The second, from 1814 to the failure of his partner, Constable, the publisher, in 1826: during this period he composed a rapid and brilliant succession of romances. Third, and last, the period of the Herculean labours to which he devoted himself to re-establish his fortune, compromised in the crisis of 1826: this ended only with his death, in 1832. Notwithstanding the merit of his poems, his success as an author was not fairly assured until the appearance of the romance of "Waverley," in 1814. This and the series which followed it, ending with the masterpiece, "Ivanhoe," 1820, had an immense sale, and brought their author a world-wide reputation. Counterfeit editions. translations in most European languages, dramatized versions, and others embellished by the art of painting and music, attested the strong interest which every one felt for the scenes and manners of what was, up to this time, nearly an unknown country; where under new and strange local colouring, the author had found and described the noblest and most generous characteristics of the human race,

This period (1814-26) was the apogee of the author's fortune and reputation. His works brought him an annual revenue of 10,000l. He was received with honour at London and Paris (1815), by Royalty, and notabilities of all professions; created a baronet in 1819; and visited at his residence, Abbotsford, by a crowd of literary pilgrims and crowned heads; while the best painters of the day, Lawrence and Chantry, drew his portrait. His income, far greater than that of any earlier writer, should have assured him an easy and comfortable existence, had he not carried into real life, and sought to realize, the imaginative dreams of the novelist. He determined to build a "romance in stone and mortar," a noble castle, where he could receive his guests with the

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magnificent hospitality of a lord of the olden time. On the Tweed, near Melrose, this castle was built, and named "Abbotsford." The costs were heavy, and to assist in paying these he became a partner in two publishing firms, Ballantyne and Constable. The failure of these houses, in the commercial crisis of 1826, rendered Scott liable for a sum of 117,000?. With what an honourable spirit he laboured to pay that debt, how his health broke down, how he vainly sought restoration in a voyage to Italy, we all have heard. The debt was paid, though it cost him his life. It was too late; and he returned to his castle, his trees, and cherished books, only to die in 1832.

From Cassell's "Cyclopædia of English Literature" we take the following extracts, cited from various sources, showing the appreciation of Scott's genius:—

"Sir Walter Scott is universally considered as the greatest writer of imagination of this century; and his reputation has been so widespread and lasting that it may reasonably be anticipated that it will not materially decline in succeeding times."

"No writer ever exercised a greater influence over the public mind, or led to so much conscious or unconscious imitation."

"If we look at the variety and richness of his gallery, at his command over pathos and terror, the laughter and the tears; at the many large interests besides those of romance which he realizes to us; at the way in which he paints the whole life of men—not their humours and passions alone; at his unfailing wholesomeness and freshness, like the sea and air and the elementary forces of nature; it may be pronounced a just estimate which places Scott second in our creative or imaginative literature to Shakspeare. 'All is great in the Waverley novels,' said Goethe, in 1831, 'material, effect, characters, execution!'"

"His writings never foster a bad or throw ridicule on a good or generous feeling."

A.D. A	ge	A.D.	Age
1771 Born at Edinburgh.		1815 "Guy Mannering;" visited	-6
1778-83 Studied at the High		London	44
School 7-	-12	1816 "Antiquary;" "Old Mor-	
1783 Entered college	12	tality"	45
1786 Apprenticed writer to the		tality"	46
Signet	15	1818 "Heart of Midlothian"	47
1792 Called to the Bar	21	1819 "Ivanhoe;" "Bride of Lam-	
1796 Translation of "Bürger"	26	mermoor"	48
1799 Translation of Goethe's "Gotz	1	1821 "Kenilworth;" "The Pirate"	50
von Berlichingen"	28	1825 Visited Ireland; "St. Ronan's	
1802 "Border Minstrelsy"	31	Well"	54
1805 "Lay of the Last Minstrel".	34	1827 "Life of Napoleon;" "Tales	
1808 "Marmion"	37	of a Grandfather"	56
1809 "Lady of the Lake"	38	1828 "Fair Maid of Perth"	57
1814 "Waverley;" "Life of Swift"	43	1832 Died	61
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BOOK II.

Art.

ARCHITECTS AND SCULPTORS—PAINTERS—MUSICIANS.

INTRODUCTION.

HE who would understand a work of art must believe in it. In presence of a painted or sculptured figure, he must forget that it is painted or sculptured, and imagine that it is living. This faculty of illusion is not always active in the man who possesses it; there are times when, standing before the finest statue and the best painting, he feels nothing. Then he goes away, waiting until his power of feeling shall revive. But, at opportune moments, in the museums where silence reigns, in the long chill galleries, the visitors seem to him to be vain shadows; he hardly sees them; he turns away his eyes from them. To his mind they are only the failures of the sculptor, the unsuccessful sketches of the painter. Nothing has reality for him, except those forms which are drawn and modelled by the masters. He lingers long before those ideal figures; in their attitudes, their gestures, their physiognomy, in each of their features there is meaning for him; he enters into the thoughts and the will of those beings; he conjectures what they are all about to do anon. He represents to himself their past history, their surroundings, the world in which they have lived or might live; he follows them into the details of that life which he attributes to them; he contemplates their passions and their actions, so widely different from ours, and metes out praise or blame to them. He speaks to them low and softly, and sometimes he believes that an answer comes to him from their mute lips. When he has thus discoursed with them he knows them, as we know a foreigner whose society we have long frequented; he is able to compare them with each other, to distinguish their characteristics, to form them into groups of families and races. And in reality they do, like

ordinary men, form families and races, each with its anatomical structure, its physiological temperament, its necessities, its instincts, its physical and mental aptitudes, its education, its beliefs, in short, its body and its soul. This is a humanity, analogous with, but superior to the other, and the fancy by which we endow it with life is a light which reveals to us its true depths.

Let us observe the way in which this humanity has been fashioned. Not only has the artist taken the materials of it from among the men of his country and his time, but he has combined them only that he may the better express some essential characteristic of his race and epoch. the real figures this characteristic was incomplete and fragmentary; it is the ideal figure that sets it forth, diffuses, and manifests it to every eye. Great artists have everywhere been the heralds and the interpreters of their people: Phidias in Greece, Rubens in Flanders, Titian and Veronese at Venice, Murillo and Velasquez in Spain. They are naturalists, historians, and philosophers, by instinct and intuition; they re-think the idea that constitutes their nation and their age; they take the mould in which Nature has cast their contemporaries, and which, filled with refractory stuff, has hitherto turned out only coarse or cracked forms. They empty it, pour in their own metal, one of a more supple kind; they heat their furnace, and the statue, which under their hand comes out of the clay, reproduces for the first time the true form of the mould, which the preceding cast, encrusted with cinders and fissured with cracks, failed to represent.

Two chief forces determine the thoughts and the actions of men; one of these is Nature, the other is culture. Each school has represented a temperament, the temperament of its climate and its country, and each school has represented it with plenitude and salience such as real men have never attained. In the works of the Florentine masters we find the long, thin, muscular type, with noble instincts and gymnastic aptitudes, such as ought to develop themselves in a sober, elegant, active race, of keen intelligence, living in a dry climate. Among Italian painters, the Venetian masters have displayed rounded, undulating, and regularly developed forms; rich full flesh, red or fair hair, the sensual, happy, witty type, of a region at once luminous and humid, whose climate causes its people, poets in the matter of enjoyment, to resemble the Flemish. Rubens, Crayer, and Jordaens will show us the white or sallow, the rosy or red German, lymphatic, sanguineous, carnivorous, a great eater; the man of the northern and aqueous country, of great but rough-hewn stature, of irregular and overgrown form, fleshy, rude, and of unskilled instincts, whose flabby pulp reddens suddenly under the influence of emotion, is readily affected by disease and weather, and decomposes horribly under the hand of death. Spanish painters will place before our eyes the type of their own race,

the tough, nervous animal, with firm muscles, hardened by the cold blasts of the Sierras and the fierce rays of the sun; tenacious and indomitable, seething with repressed passions, burning with inward fire, dark, austere, and dried up, among harsh tones of sombre stuffs and sulphurous smoke, which suddenly clear themselves away and reveal a delicious rose tint, the hue of youth, of beauty, of love, of enthusiasm, upon cheeks in the full bloom of loveliness. An involuntary, all-pervading sympathy has taught each master to understand, even to its inmost depths, one species of organic body, its substance, its constitution, its proportions, the varieties which it can supply, its ruling disposition, its derived characteristics, the animal instincts which befit it, the admirable harmony of all its members, and the unerring logical connection between every detail of its action and that body.

Together with innate life, the ideal figure also expresses acquired culture. A statue like the Theseus of the Parthenon, or the Fighter of the Louvre, is the outcome of the entire Greek education. long ages, laws, religious manners, and ceremonies have worked together to make the finished athlete, the perfect living statue. In the Gymnasia all the muscles of the youth have been made strong and pliant; none of them have been neglected, the masters, true artists, would have the different portions of the body balance each other, and have so trained it as to give it not only vigorous power of resistance, and speed, but also symmetry and elegance. The forearm, so thin nowadays, the shoulderblades, stiff and meagre, were filled out, and formed a well-proportioned pendant to the hips and thighs. The patella, the articulations, the entire bony structure, formerly salient, were flattened and merely indicated. The line of the shoulders, previously hard and horizontal, was bent and softened. The foot, at first splay, and revealing a simian origin, became arched and elastic; the heel, at first heavy and spreading, was reduced to an oval. In short, all forms were ennobled, and became fit to furnish models to the sculptor. On the other hand, the culture of the Gymnasium was supplemented by that of the Orchestra, or School of the Arts of Dancing and Pantomime. The young man was taught sculptural attitude, action, and gesture, he was placed in a Choir, which is a bas-relief in action; poses, draperies, arrangement, evolutions, were all so regulated as to make of each group so beautiful a work of art, that the procession of the Panathenea was copied on the frieze of the Parthenon, and the Pyrrhic dance suggested the sculptures of Phygalia and Budrun. Thus the leader of the Choir and the master of the Gymnasium did their best But, although they neared the goal, they did not quite reach it. They did indeed form and instruct their young men; nevertheless, there still remained imperfections in those already well-favoured and well-trained bodies, perceptible to a more discerning eye. Another master comes, Polycletes, Phidias, or Praxiteles, with more delicate perceptions, with loftier

conceptions, with the comprehension of completeness that constitutes genius; and, looking beyond the models which were presented to him, he imagined a form more pure, proportions more correct, a better-balanced life, a soul more serene, more healthy, and more lofty, and for the expression of all this, he has brass or marble, which are more manageable materials than the human organism. At length the ideal young man, whom the whole of Greek culture had conspired to produce, stands forth, visible and erect; in that brass or in that iron the Greek culture attains its success and its completion.

The spectacle is a similar one if we contemplate the opposite education, that which mortifies the body, disdains the terrestrial life, and directs the mind entirely towards heaven. Consider the development of that culture during eighteen centuries, the wise methods of discipline it has instituted, the thousands of convents it has built, the millions of souls it has guided. The effort has been prodigious, and it is still going And yet, in order that we may appreciate the full effect of it, we must have recourse to the great artists, to Perugino, to Carpaccio, to Holbein, to Fra Angelico, above all, to Hans Memling. He who has not contemplated the paintings in the Hospital of Bruges has not seen the real Religious. She is there, motionless, clothed in a double and triple garment, whose stiff folds shall never be disturbed; the attenuated body disappears, it is hardly to be guessed at beneath the vesture, the shoulders are narrow, the arms are slender, the life has concentrated itself entirely in the head. And what a strange head! Balanced on a long and slender throat, oval in shape, widening towards the brow, the upper-lip very much arched, the eyebrows still more arched, a wide, rounded forehead, with irregular bumps in it, and seemingly full of mystic thoughts; eyes which gaze without seeing. By the depth and the absorbing intensity of its dream, such a figure is placed outside the ordinary world, fixed for ever in its attitude, impassive, and "recollected" to all eternity. Henceforth its state is that of abiding contemplation, without images and without words, of which the Doctors speak. There is nothing violent in this condition, there are no transports, there is no vivid illumination; there is the placidity of absolute belief, the peace of the soul preserved in the cloister as though it were a Sleeping Wood. Nothing troubles it in its sweet and somewhat sad quietude. All surrounding actions take place by rule, and all surrounding objects are dim; every day the uniform hours bring before it the same white walls, the same brown shadows from the carved wood-work, the same falling folds of hood and habit, the same rustling of steps passing to chapel or to dormitory. Delicate, indistinct sensations are vaguely aroused in this monotony; the soul feels itself ever surrounded, sustained, uplifted by omnipotence, by divine goodness to which it abandons itself, and tender piety, like a rose sheltered from the storms of life,

unfolds itself, far from the high-road whereon human footsteps hustle each other. This is what that figure tells us; return and stand before it again; each time it will speak to you more profoundly and familiarly; you may draw ever so deeply from the stores of the work, you will never exhaust all that the master has placed therein. Such is the office of Art; the great forces which fashion humanity are insufficient workmen; they half-do their work, they only do but produce sketches. That which they merely outline, Art completes.

H. TAINE.

NOTE.

It has been thought advisable to say a few words in order to explain the arrangement adopted for this book. Of the five members of the Fine Art family, the three sister arts, Sculpture, Painting, and Music, occupy a special and peculiar place; the other two, Architecture and Poetry, contain an element of the useful, but these three do not rest upon this basis of utility—their chief function in the scale of things is to be beautiful.

If not the highest, they are at least the rarest; Architecture and Poetry, like the art of war, belong to all ages—they are the necessities of civilization; but these others only appear at certain bright and happy epochs—they flash out and are lost again—they are the luxuries of civilization.

The brilliant historical epochs of the world are three: the Age of Pericles, the Renaissance, the Revolution. Sculpture was the art of the first, Painting of the second, Music of the third.

The Germans say that music is liquid beauty, and sculpture is solid beauty; sculpture is crystallized music, &c. If this be true, painting stands between the two and forms the transition, and it is a fact that it stands, in historical development, between them.

Art is thus seen in the course of history to have passed across the spectrum—to have passed from the pole of repose to the pole of action; from a static mode of expression to a dynamic mode of expression.

The representatives of the three great artistic and historic phases are Phidias, Raphael, and Beethoven. Each of these leaders is the centre of a group; to know these groups, and to be acquainted with the lives of their different members, is to know three of the most important epochs which the world has seen.

The knowledge is useful, for it teaches us how to anticipate another epoch, with a new art and new masters. What will be the art of the future?



PHIDIAS.

488-432 в.с.

ANTIQUE SCULPTURE.

Phidias is one of those geniuses of antiquity whose reputation has been maintained with ever-increasing lustre. His name, which was never pronounced except with honour in the time of Alexander and of Augustus, has excited the admiration of barbarous ages, and has acquired additional splendour in being handed down to modern times. Very little is known, however, of the history of this famous artist. Several events of his life, which once appeared certain, have been contested, while others have been admitted, although devoid of proof, and even, it would seem, against the weight of evidence.

As this master was incontestably one of the principal authors of the extraordinary and rapid progress which the art of sculpture made in his lifetime, it is important to ascertain the date and the circumstances of so

notable a change.

Phidias was born at Athens; his father was named Charmides. Two facts are certain in the chronological history of his life. The first is that the statue of Minerva, which he erected in the Parthenon of Athens, was finished in the year 438 B.C., and that he represented himself in the bas-reliefs which adorned the shield of the goddess as a bald-headed old The second fact is that he introduced in the bas-reliefs of the throne of Jupiter at Olympia the figure of the youth Pantarces, placing on his head the crown which he had won in the Olympian games of the 86th Olympiad (436 B.C.). It may be assumed that Phidias was born about the year 488 B.C. He studied his art first under Hegias of Athens, and next under Ageladas, of Argos, who was one of the most illustrious sculptors of his time. The first public work of Phidias was probably the statue of Athena (Minerva) at Platæa. The Athena Promachus, which stood on the Acropolis at Athens, between the Parthenon and the Propylea, must have been executed soon afterwards. This statue was of bronze. With the pedestal it was between fifty and sixty feet high, and navigators, on coming round the cape of Sunium, could perceive the point of the goddess's spear and the crest of the helmet. Phidias was not entrusted single-handed with the execution of so colossal a work, for the painter Parrhasius designed the bas-reliefs on the shield, and Mys modelled theni.

It was probably about the same time that Phidias executed the statue of Minerva in the town of Pellene, in Achaia. This figure was of ivory and gold. The employment and the union of these materials in sculpture were not a new invention, for examples of their use are found in the most remote times; but it was reserved for Phidias, thanks to the growth of wealth and luxury, to produce colossal statues of this kind, which surpassed by their magnificence all that had preceded them, and to create models which after ages should not have the ambition even to equal.

The administration of Cimon was also rendered memorable by another work of Phidias, namely, the offering which the Atheuians consecrated in the Temple of Delphi, in memory of the victory at Marathon. It was composed of thirteen statues, that of Miltiades being placed by the side of Apollo and Minerva. The rank accorded to Miltiades, although he had died in prison, clearly shows that this monument belongs to the period when Cimon, in all the splendour of his glory, restored to his father the honour which the latter had so justly merited. It was also at the epoch of the greatest power of Athens, when the victories of Cimon increased the number of her allies, that the inhabitants of the Isle of Leunos offered to the Atheuians the statue which, in consequence of its origin, was called the Lemnian Minerva. Phidias impressed on this figure a beauty to which art had not before attained. Lucian preferred it to all the other statues modelled by this great artist, and Pausanius

does not hesitate to say that of all the images of Minerva produced by Phidias this was the most worthy of the tutelary Goddess of Athens. The statue of the Mother of the Gods, placed in the temple of that goddess at Athens, and the Amazon of the Temple of Delphi, which are also reckoned among the first productions of Phidias, date from about the same period. The sculptor had now trained two pupils who were worthy of him—Alcamenes and Agoracritus. Both these young artists executed, in a competition, marble figures representing Venus Urania. The work of Alcamenes was preferred to that of his rival. It was said that the master had worked at it, and this opinion was so well established that the ancients appear generally to have attributed it, not to Alcamenes, but to Phidias himself.

These different works had acquired for Phidias a brilliant reputation when the government of Pericles succeeded to that of Cimon. Phidias was now appointed superintendent of all the works undertaken by order of the people. The temple of Minerva, called the Parthenon, was commenced about this time, and Phidias executed the statue of the goddess, which was placed in the interior, and some of the sculptures which adorned the outside of the edifice. Writers never speak of this statue of Minerva without raptures, yet what has rendered the name of the artist immortal proved at that time his ruin. He had carved upon the shield of the goddess his own portrait and that of Pericles. This was censured as impiety, and he was also charged with embezzling part of the gold intended for the statue. Of the last charge he was acquitted, but on the other imprisoned. These accusations, however, came five years later. In the meantime he had gone to Elis, and had produced his Jupiter Olympus, which was afterwards ranked among the most wonderful works of art in the world. It was executed with "astonishing sublimity of conception," its dimensions being sixty feet high, and every way proportioned. "The majesty of the work equalled the majesty of the God," says Quintilian, "and its beauty seems to have added lustre to the religion of the country." This celebrated statue was removed by the Emperor Theodosius to Constantinople, where it was destroyed by a fire. A.D. 475.

Other statues are ascribed to Phidias on doubtful testimony. Among them is one of the two horses in front of the Palazzo di Montecavallo at Rome. The Elgin Marbles in the British Museum include many sculptures executed by Phidias, as has been generally supposed, or under his direction. They exhibit the highest development of Greek art. As types of beauty they have never been surpassed, and even in their present fragmentary condition they afford models of form which modern art has not been able to equal.

As a candidate for the honour of future ages, Phidias was singularly fortunate. He saw the rise and grandeur of the noblest century of the

world. He carved its ideals in marble, and enshrined them in a temple, and this temple, with its works, has become the standard by which all succeeding art is, either consciously or unconsciously, measured.

Moreover, he had the good fortune to be inspired at this happy moment with such a realization of the image of the Supreme Deity that its expression in material shape served to established the type for all time.

We may form some conception of the character of that lost work by the study of the well-known head—the Jupiter Otricoli. The high and expansive arch of the forehead, the masses of hair gently falling forward, the largeness of the facial angle, which exceeds ninety degrees, the shape of the eyebrows, the perfect calmness and commanding majesty of the large and full-opened eyes, the expressive repose of all the features, and the slight forward inclination of the head, are the chief elements that go to make up that representation which, from the time of Phidias downwards, has been regarded as the perfect ideal of supreme majesty and entire complacency of the "father of gods and men" impersonated in human form.

"There exists a God, Creator, and Father of all beings, older than the sun, older than the heavens, greater than time, greater than eternity, greater than Nature itself, which dissolves and perishes; a God that the voice cannot express, that the eyes cannot see, but still one that imperfect man, a prisoner in the flesh, has need to imagine in sensible forms. Statues are the material symbols of the inaccessible Divinity. The duty of the artist is to comprehend the Divine Nature, and to make it comprehensible to the consciousness of his fellow-men. With the Greeks it was the art of Phidias that awakened in their souls the souvenir and the thought of Deity."

The distinguishing characteristic of the art of Phidias was ideal beauty, and that of the sublimest order, especially in the representation of divinities, and of subjects connected with their worship. While on the one hand, observes Mr. Philip Smith, he set himself free from the stiff and unnatural forms which, by a sort of religious precedent, had fettered his predecessors of the archaic or hieratic school, he never, on the other hand, descended to the exact imitation of any human model, however beautiful; he never represented that distorted action, or expressed that vehement passion, which lie beyond the limits of repose; nor did he ever approach to that almost meritricious grace, by which some of his greatest followers, if they did not corrupt the art themselves, gave the occasion for its corruption in the hands of their less gifted and less spiritual imitators

Of the four schools of sculpture existing at the commencement of the century of Phidias, two were chief—the school of Ægina and the school of Athens. Art was redeemed from archaic rudeness and developed into

perfect beauty: physical beauty in the one school, the fair expression of which is seen in the Æginetan Marbles; spiritual beauty in the other, the grand example of which is still seen in the mutilated remains of the Parthenon.

Wherever art is normally developed, it passes through three successive phases—strength, ideal beauty, grace. In the development of Greek art the first is represented by Polycletus, the second by Phidias, the third by Praxiteles. Polycletus wrought out the perfect body; Phidias added to this the noble and beautiful face, the face of the Jupiter Otricoli, the Juno Ludovisi, the Minerva Velletri, the Venus de Milo. After his time it became the favourite manner of the artists to make the faces of their statues express pathos or suffering, as in the Niobe or the Laocoon, and to make the bodies of the statues express allurement and grace, as in the Venus de Medicis, or the "Faun of Praxiteles."

Nothing has yet been said of Phidias as an architect, and here but a word is necessary. The design of St. Peter's is essentially the design of Michael Angelo, that of the Parthenon is attributed to Phidias. These are, perhaps, the two most famous edifices in the world, and Phidias and Michael Angelo are the two most consummate architects. No genius of the highest order, it is said, was ever devoted to architecture alone. Architecture is but the bare trunk of the art-tree: its flowers and fruit are sculpture and painting.

CHRONOLOGY.

B.C.		Age	B.C.	Age
490	Battle of Marathon.	0	destroyed by the Persians .	
479	Athens taken by the Persians		444 Pericles obtains the govern-	
	and burnt		ment; Phidias overseer of all	
478	Athens rebuilt and fortified by		public works	44
	Themistocles; Piræus built.	10	442 Parthenon designed	46
471	Themistocles banished	17	438 Parthenon finished; statue of	
461	Cimon, son of Miltiades, popu-		Athenæ dedicated	50
	lar; he adorns Athens; Tem-		437 Phidias goes to Elis	51
	ple of Theseus built	24	433 Statue of Zeus at Olympia	55
459	The Long Wall built; statue of		432 Phidias accused of embezzle-	
	Athenæ Promachus?		ment and impiety; im-	
457	General restoration of Temples		prisoned : dies	56



PRAXITELES.

384-314 в.с.

THE LATER ATTIC SCHOOL OF SCULPTURE.

Praxiteles is one of those illustrious masters whose names are indissolubly connected with the great revolutions that have been effected in art. "There is no one," says Varro, "however little instruction he may have received, who does not know Praxiteles." Most of the ancient writers who have spoken in his praise represent him as being distinguished by a firmness in the outlines, a grace in the attitudes, and, above all, by a delicacy in the expression of the softer affections of the soul, which announce new progress due to the age in which he lived, and particularly to his own genius. Modern writers on art have therefore searched carefully for the epoch to which he belongs. Unfortunately none of the ancient authors who speak of this celebrated statuary have made known to us either the place or the year of his birth, or the name of his instructor, or the date of his death.

It is very probable that he was a native of Athens. At all events, this inference may fairly be deduced from the fact that he resided there in his youth; and there is besides an inscription extant in which he is expressly called an Athenian.

A critical comparison of several passages in Pliny with the assertions of other ancient authors, led M. Émeric-David to the belief that the epoch of Praxiteles was 332-305 B.c. A more recent biographer, however, M. Émile Gebhart, comes to the conclusion that the artist was born about 384 B.C. The date of his death is unknown; perhaps it may have occurred about 314 B.C.

Praxiteles had two sons—Timarchus and Cephisodotus—who were also distinguished as sculptors.

The works of Praxiteles are very numerous. He represented the "Twelve Gods" for an old temple at Megara, and "Juno on a Throne with Hebe and Minerva" for a temple at Mantinea. The "Rape of Proserpine" in bronze is mentioned by Pliny, and must have been a work of considerable size. "Proserpine" was again sculptured by the artist, and placed in a temple at Athens with "Ceres" and "Iacchus." Another "Ceres" is mentioned, at a later date, in the gardens of Servilius at Rome, in company with "Triptolemus" and "Flora," but it is not known from what place in Greece they were taken. "Apollo the Lizard-slayer" is known by the copies which several modern museums possess Another "Apollo" with a "Neptune" was carried by the Romans to the Capitol. At Megara "Apollo" was accompanied by "Latona" and "Diana." Argos possessed a "Latona" by Praxiteles, and Mantinea a "Latona with her Children." The "Diana Brauronia" of the Acropolis at Athens, was by Praxiteles, as well as the "Diana" of Anticyra. Bacchus, with his companions, was a favourite of Praxiteles, who was often inspired by this subject. For example, "Bacchus," represented as an infant in the arms of Mercury, adorned the Heræon of Olympia; another "Bacchus" was preserved in the temple of Elis; and the God of Wine also formed a celebrated group with "Intoxication" and a "Satyr." The famous "Satyr," which was placed in a temple in the street of the tripods at Athens, is the subject of an amusing anecdote. Praxiteles was much attached to the beautiful Phryne, to whom he promised to give the very finest of his works if she would select it. Mistrusting her own judgment in the matter, she planned a stratagem in order to discover which he most esteemed. She sent to him a slave, who, with feigned alarm, announced that the artist's studio was in flames. Praxiteles exclaimed: "If my 'Satyr' and 'Cupid' are not saved, I am ruined." Phryne chose the "Cupid," and presented it to the town of Thespiæ, which had just been laid waste by Alexander. "Thespiæ is no longer of any account," says Cicero, "but it preserves the Cupid of Praxiteles, and there is no traveller who does not visit the city to see that beautiful statue." This Cupid

was of marble, his wings were gilt, and he held his bow in his hand. Caligula had the statue removed to Rome; Claudius restored it to the Thespians; Nero deprived them of it again; and it was then placed under the portico of Octavia, where it was destroyed in a conflagration in the time of Titus. A copy made by the Athenian Menodorus remained at Athens. The numerous repetitions of this statue show the high esteem in which it was held. The city of Parium, on the Propontis, possessed another marble statue of Cupid, from the hand of Praxiteles, who also made two Cupids in bronze, which are described by Callistratus. Another Cupid by Praxiteles was possessed by the Mamertine, Heius, from whom it was stolen by Verres.

The most famous works of Praxiteles, however, were the two statues of Venus, which added lustre to the towns of Cos and Cnidus. The former was draped, the latter nude. Pliny relates that the artist, considering each of the statues to be of equal value, offered them for sale together at the same price. The people of Cos, who had always possessed a character for severe virtue, purchased the draped statue, severum id ac pudicum arbitrantes; the other was bought by the Cnidians, and its fame almost entirely eclipsed the merits of the rival work. This Cuidian Venus appears to have been the first instance in which any artist had ventured to represent the goddess entirely divested of drapery. The admiration of antiquity for this masterpiece is well known. Indeed, the Jupiter of Phidias and the Cnidian Venus of Praxiteles appear to have been regarded, in their different styles, as the two most finished productions of Greek sculpture. Everybody knows the saying of Pliny: "From all the ends of the earth people sail towards Cnidus, in order to behold the statue of Venus." King Nicomedes offered, in exchange for this statue, to pay off the whole public debt of the inhabitants of Cnidus, which was very considerable, but they rejected this proposal, and rightly so, adds Pliny, "for this masterpiece constitutes the splendour of their city." It was afterwards taken to Constantinople, where it perished by fire-together with innumerable other works of art-in the reign of Justinian. A third marble statue of Venus, formerly preserved at Thespiæ, was a portrait of Phryne.

The position occupied by Praxiteles in the history of ancient art can be defined without much difficulty. He stands with Scopas, as Mr. Philip Smith observes, at the head of the later Attic school, so called in contradistinction to the earlier Attic school of Phidias. Without attempting those sublime impersonations of divine majesty, in which Phidias had been so inimitably successful, Praxiteles was unsurpassed in the exhibition of the softer beauties of the human form, especially in the female figure. Without aiming at ideal majesty, he attained to a perfect ideal gracefulness; and in this respect he occupies a position in his own art very similar to that of Apelles in painting.



LEONARDO DA VINCI.

A.D. 1452-1519.
THE RENAISSANCE OF ART.

This great genius, who was distinguished as a painter, sculptor, architect, engineer, and physiologist, was born in 1452 at Castello da Vinci, a village in the Val d' Arno, near Florence. He was the natural son of a notary, who was descended from a noble family.

Nature bestowed her most precious gifts with a prodigal hand on the young Leonardo. Handsome, and endowed with a physical strength rarely equalled, he joined to those bodily advantages extraordinary dispositions for the arts and sciences. Not content with excelling in fencing, in horsemanship, in music, and in dancing, he acquired in his early years a very considerable knowledge of mathematics, physical science, philosophy, and every branch of literature. At an early age he was sent by his family to Florence, to commence his artistic education in

the studio of Andrea Verocchio, a noted painter and sculptor. Being employed to paint the figure of an angel in a picture of the "Baptism of Christ," his performance so eclipsed all the rest of the composition, that Verocchio, in despair at finding himself thus surpassed by his pupil, renounced painting altogether. Leonardo executed various works in Florence, which gave him so high a reputation, that in 1481 he was invited to the court of Lodovico Sforza il Moro, then Regent, afterwards Duke, of Milan, who settled upon him an annual stipend. As that prince greatly delighted in music, Leonardo treated him with the strains of an instrument of his own invention, of extraordinary power; and he also exhibited himself as the best extemporaneous poet of his time. He likewise designed an equestrian statue of the Duke Francis, father of Il Moro: but this monument was modelled on so colossal a scale, that the casting of it in bronze was deemed impracticable. For his patron Lodovico he executed a number of other works, and thus justified his appointment to the office of Director of the Academy of Painting and Architecture, which that prince had just founded. Almost daily he enriched the arts and sciences with some new invention, and as an engineer and architect he triumphed over difficulties which were thought to be insurmountable, in order to establish the junction of the canal of Martesana with that of Ticino. Finally it was at Milan that he composed for the refectory of the Dominican convent of S. Maria delle Grazie the celebrated picture of "The Last Supper." Only the ruins of this magnificent work now exist. Almost all trace of Leonardo's work has disappeared, but the general composition, the perfect design, and the harmonious grouping of the figures, remain to reveal the master in the picture which has made his name famous throughout all the world.

On the occupation of Milan by the French in 1500, Leonardo rereturned to Florence, and two years later he was engaged by Cæsar Borgia, captain-general of the Pope's army, as his chief architect and military engineer. On his again returning to Florence, the Senate employed him to paint, conjointly with Michael Angelo, the Grand Council Chamber in the Palazzo Vecchio. The emulation between the artists gave birth to the two great cartoons which are so much spoken of in the history of art. That of Leonardo represented the defeat by the Florentines of Niccolò Piccinino, one of the greatest generals of Italy; while the cartoon of Michael Angelo had for its subject an episode in the siege of Pisa by the Florentines. The decision of judges of art remained suspended between these two masterpieces; but it should be remembered that at the time of this memorable struggle there was an extreme disproportion of age between the two rivals, and that it was doubly glorious for Leonardo, almost a sexagenarian, not to be conquered by Michael Angelo, who had scarcely arrived at his thirtieth year. Unfortunately

it is impossible for us to appreciate the merit of these celebrated cartoons, for both of them appear to have been destroyed. Nothing of Leonardo's composition remains but a sketch by Rubens, from which Edelinck's engraving called "The Battle of the Standard" was taken.

In 1514 Leonardo followed to Rome Giuliano de' Medici, whose brother, Leo X., had just been elected to the papal chair. The Supreme Pontiff gave him several commissions, but he soon took umbrage at some disparaging remarks of the Pope, and resolved to leave Italy for France, where King Francis I., then at Fontainebleau, accorded to him a most honourable reception, and appointed him his painter, with a salary of 700 crowns (1516). Installed by the King in the palace of Cloux at Amboise, the artist spent in that retreat the remainder of his days. He died on the 2nd of May, 1519, and was buried in the church of St. Florentin at Amboise. According to some writers he was visited in his last illness by the King of France, and died in the arms of that great monarch, who was raising his head when he expired.

The works of Leonardo da Vinci are extremely rare. Among them are a portrait of Charles VIII., long attributed to Perugino; "La Belle Ferronière," a portrait of Lucrezia Crevelli (Louvre); portrait of Mona Lisa, wife of Francesco del Giocondo, celebrated under the name of "La Joconde" (Louvre); "St. John the Baptist" (Louvre); "The Madonna seated on the lap of St. Anne" (Louvre); "La Vierge aux Rochers," of which the original is at Charlton Park, the seat of the Earl of Suffolk, and copies are in the Louvre, at Naples, and elsewhere; a fresco of the Madonna in S. Onofrio at Rome; "The Daughter of Herodias carrying the head of St. John the Baptist in a Charger," regarded, however, by some artists as the work of Luini or of Andrea Solario; "Vanity and Modesty," in the Sciarra Gallery at Rome; "St. Jerome," at Rome; the "Four Evangelists;" the "Head of Medusa," at Florence; a "Leda," sometimes called a "Charity," at the Hague; "La Colombina" or "Flora;" "La Vierge au Bas-Relief," in the possession of Lord Monson; and another Madonna at St. Petersburg. "Christ disputing with the Doctors," in the National Gallery, was long thought to be the genuine work of Leonardo, but it is now universally believed by critics to be by Bernardino Luini. "La Vierge au Fleur-de-Lys," in the Albani Palace at Rome, has also been attributed to Luini.

As a painter Leonardo da Vinci may be considered the first who reconciled minute finishing with grandeur of design and harmony of expression. His was the very poetry of painting. His exquisite taste, by continually making him dissatisfied with his works, urged him on to a nearer approach to perfection than had ever been attained. It is to be remembered, to the eternal honour of Leonardo, that he first dissipated the film of ignorance which impeded the progress of the arts; and if Raphael and Michael Angelo afterwards surpassed him, it is to him

that justly belongs the merit of having first pointed out the road which they so successfully followed.

Leonardo's "Treatise on Painting" is an encyclopædia of the painter's art in all its branches. The extracts from his MSS., published in 1797, are said by Hallam to be "more like the revelations of physical truths vouchsafed to a single mind, than the superstructure of its reasoning upon any established basis;" and he adds: "The discoveries which made Galileo, and Kepler, and Maestlin, and Maurolyens and Castelli, and other names illustrious, the system of Copernicus, the very theories of recent geologers, are anticipated by Da Vinci, within the compass of a few pages, not perhaps in the most precise language or on the most conclusive reasoning, but so as to strike us with something like the awe of preternatural knowledge."

CHRONOLOGY.

A.D.	Age	A.D.	Age
1452	Born at Castello da Vinci, near	1502 Architect and engineer	
	Florence.	castles and fortresses	
1477	Leaves Verocchio's atelier at	Romagna	
	Florence 25	1503 Returns from Romagna	
1481	Goes to Milan 29	Florence	
	Director of the Academy of	1504 Death of his father	
	Milan 38	1506 Exhibition of cartoon in Cou	
1490	"La Vierge au Bas-Relief", 38	cil Chamber, Florence .	
	Finishes equestrian statue of	1507 Returns to Milan	
	Duke Francis 41	1511 Visits Florence	
1496	Works at "The Last Supper" 44		
	"La Gioconda" 48		
	Returns to Florence 48		
1000	Tectaring to riorentee: 1 1 10	TOTO DICO GO LEMBORDO	,



MICHAEL ANGELO BUONAROTTI.

А.D. 1475-1564.

MODERN SCULPTURE AND ARCHITECTURE.

ONE of the most distinguished names in the glorious history of Christian art is that of Michael Angelo. In nearly every branch of art he carried off the palm. As a painter and a sculptor he was unrivalled among his contemporaries; the majestic temple erected over the Tombs of the Apostles is a standing proof of his consummate skill as an architect; and the extraordinary versatility of his genius is further shown by his poetical compositions, and by the engineering works and fortifications which he designed.

Born 6th of March, 1474-75, at the Castle of Caprese, in Tuscany, he was descended from the noble family of the Counts of Canossa, and was, through Count Boniface of Canossa, who married a sister of Henry II., allied to the Imperial blood. At the time of his birth his father was

Governor of Caprese and Chiusi. When of a proper age Michael Angelo was sent to a grammar school at Florence, where he contracted a fondness for drawing, which at first alarmed the pride of his family; but his father at length perceiving that it was hopeless to give his mind any other direction, placed him under Domenico Ghirlandajo, the most eminent painter of that time in Florence. When Lorenzo de' Medici, "the Magnificent," established a school for the advancement of sculpture, in the Garden of St. Mark, at Florence, under the superintendence of Bertoldo, Michael Angelo instantly resorted thither, and Lorenzo was so much struck with his first attempt at sculpture - a mask representing a laughing Faun—that he adopted him into his family, treated him as his own son, and introduced him to men of rank and genius. death deprived him of the patronage of Lorenzo, but he continued to prosecute his studies in the Medici Palace until the tranquillity of Florence was disturbed, when he retired to Bologna, where he executed two statues in marble for the church of St. Dominic. Returning to his father's house at Florence, he advanced his reputation by producing a sleeping Cupid in marble, which was stained so as to give it the appearance of an antique work. This was purchased by the Cardinal di San Giorgio for 200 ducats. On the discovery of the real artist he was invited to Rome, where he executed several statues, including the famous Pietà, which stands as an altar-piece in one of the chapels of St. Peter's. This masterpiece raised his reputation to such a height that, acting on the advice of a friend, he returned to Florence, where he obtained the patronage of Pietro Soderini, Gonfaloniere, or chief magistrate of that Here, in eighteen months, he produced the colossal statue of "David," which stands in the Piazza del Gran Duca. A painting of "The Holy Family," said to have been executed at this period, and believed, until recently, to be an authentic work, and his only work in oils, is preserved in the Florentine Gallery.

The Gonfaloniere commissioned Michael Angelo to paint a large historical subject, to ornament the hall of the Ducal Palace, and engaged Leonardo da Vinci to execute a corresponding picture to occupy the opposite side of the hall. An event in the war between the Florentines and Pisans was the subject chosen by Michael Angelo. His cartoon was the most extraordinary work that had appeared since the revival of arts in Italy; but as no part of it now remains, an idea of it can be formed only from Vasari's description. From various causes the picture itself was never begun, and the cartoon, which was exhibited to students for their improvement, was by degrees mutilated and destroyed.

On the accession of Pope Julius II., Michael Angelo was among the first invited to his court, and the Pope gave him an unlimited commission to make a mausoleum. When this magnificent design was completed, it met with the Pontiff's entire approbation, and Michael Angelo was re-

quested to go into St. Peter's and see where it could be conveniently placed. Michael Angelo fixed upon a particular spot, but the church, itself very old, being deemed ill-adapted for so superb a mausoleum, the Pope, after many consultations with architects, determined to rebuild St. Peter's: and this is the origin of that edifice which took 150 years to complete, and is now the grandest display of architectural splendour that ornaments the Christian world.

The work was begun, but it had not proceeded far before some umbrage was taken by the architect, who suddenly left Rome, and set out for Florence. After some time a reconciliation was effected, and Michael Angelo returned to the Pope, who now employed him in painting the ceiling of the Sistine Chapel. In 1513 Pope Julius died, and was succeeded by Leo X., who employed the artist in various works ill-suited to his inclination, particularly in the construction of a road from the marble quarries of Pietra Santa to the sea. Under succeeding Pontiffs his merits were also neglected, though he was sometimes employed on works of architecture. In 1527-30 he displayed genius of yet another kind, being engaged in fortifying the city of Florence against the assaults of the Imperial troops. After completing the lesser mausoleum of Julius II., he commenced his great painting of "The Last Judgment" in the Sistine Chapel, and finished it in 1541. His next engagement was in painting two pictures of "The Crucifixion of St. Peter" and "The Conversion of St. Paul" for the Capella Paolina in the Vatican.

In 1546, on the death of San Gallo, he was appointed architect of St. Peter's, which, by the touch of his genius, was converted from a mere Saracenic hall into the most superb model of a Christian church. This office of architect he held through five pontificates, refusing all remuneration for his labour, which he regarded as a service to the glory of God.

With this stupendous work on his hands, he also carried forward the Palazzo Farnese, constructed a Palace on the Capitoline Hill, adorned the hill with antique statues, made a flight of steps to the church of the convent of Ara Celi, rebuilt an old bridge across the Tiber, and converted the Baths of Diocletian into the magnificent church of Santa Maria degli Angeli.

He died on the 17th of February, 1563-64, having almost completed his eighty-ninth year. He was buried first in the church of the Santi Apostoli at Rome, but afterwards the body was removed to Florence, and interred in the church of Santa Croce.

Michael Angelo was of middle stature, bony in his make, and rather spare, although broad over the shoulders. He had a good complexion; his forehead was square and somewhat projecting; his eyes rather small, of a hazel colour, and on his brows but little hair; his nose was flat, having been disfigured by a blow he received when young from Torri-

giano, a fellow-student; his lips were thin; and, speaking anatomically, the cranium on the whole was rather large in proportion to the face. He wore his beard, which was divided into two points at the bottom, not very thick, and about four inches long; his beard and the hair of his head were black when he was a young man; and his countenance was animated and expressive.

Michael Argelo has been styled the "Dante of the Arts," and there is, in truth, more than one point of resemblance between him and the illustrious poet. As Dante chose the most difficult subjects to celebrate in verse, and discovered in them beauties which gained for him the epithets of grand, profound, and sublime, so Michael Angelo sought out difficulties in design, and showed himself equally profound and skilful in his mode of surmounting them.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1474	Born 6th March.		1529 Directed defence of Florence	0
1488	Placed under the Brothers		against Imperialists	55
	Ghirlandajo	14		
1491	Patronized by the Medici	20	1541 Picture of "The Last Judg-	
1494	Worked at Venice	20	ment"	67
1501	Produced his "David" at Rome;		1555-59 Employed on fortifications	
	commenced monument for		of Rome 81	-85
	Julius II		1564 Death	90
1512	Completed painting roof of			
	Sisting Changl	20		



RAPHAEL.

A.D. 1483-1520. PRINCE OF PAINTERS.

By universal consent the greatest of all painters is Raffaello Santi, or Sanzio, who was born at Urbino, in the State of the Church, on the 6th of April, 1483. His father, Giovanni Santi, was a painter of considerable renown, and his mother was Magia Ciarla, daughter of a merchant of Urbino. When only eight years old Raphael lost his mother, and at twelve years of age he had to mourn the death of his father, who had married a second time. His mother-in-law, and the priest Bartolommeo Santo, his uncle and guardian, appear to have neglected him, but happily he found a sincere friend in his mother's brother, Simone Ciarla, who knew how to appreciate him, and for whom he preserved until his death quite a filial affection.

Much uncertainty exists respecting Raphael's early artistic training.

It is probable that he received his first instruction from his father; and in 1495 he was sent to study under Pietro Perugino, the most celebrated painter at that time in Umbria, who was then engaged on the frescoes of the Sala del Cambio (Exchange) at Perugia. The most important work of Raphael's youth is the "Coronation of the Blessed Virgin," now in the Vatican. Among other works in his first, or Peruginesque, manner, prior to his removal to Florence, are the celebrated Sposalizio, or "Marriage of the Blessed Virgin," now at Milan; the "Vision of a Knight," in the National Gallery; the "Adoration of the Magi," at Berlin; "Christ on the Mount of Olives," in the possession of Mr. Fuller Maitland; "St. George" and "St. Michael," in the Louvre.

In October, 1504, Raphael paid his first visit to Florence, carrying with him a letter of introduction to the Gonfaloniere Soderini from Giovanna della Rovere, Duchess of Sora, and sister of the reigning Duke of Urbino. At Florence he studied the masterpieces of Leonardo da Vinci and of Masaccio, which caused him to sensibly modify his style; He did not, however, depart abruptly from his early traditions, and the first picture he painted at Florence—the "Madonna of the Grand Duke," so called because Ferdinand III. always took it with him on his travels -is almost entirely in the Peruginesque style. The celebrated picture at Blenheim, painted in 1505, holds a middle place between Raphael's first and his second, or Florentine, manner. It was designed as an altarpiece for a church at Perugia, and represents the Madonna and Child on a throne, with St. John the Baptist and St. Nicholas of Bari. The chief works executed in Raphael's second, or Florentine, manner are the "St. Catherine of Alexandria," in the National Gallery; the "Entombment of Christ," which is the principal crnament of the Borghese Gallery at Rome; "La Belle Jardinière," in the Louvre; the "Madonna del Baldacchino," at Florence; and the "Madonna del Cardellino," also at Florence. With the exception of a few months passed at Perugia in 1505, and a short interval at Bologna and Urbino in 1506, the whole period from 1504 to 1508 was spent by Raphael in Florence. There he became acquainted with the principal artists and scholars of his time. Among his intimate acquaintances were Ridolfo Ghirlandajo, the son of Michael Angelo's master, and Fra Bartolomeo. With the latter he maintained a friendship which ended only with death, and to which we partly owe the finest works of both.

In 1508 Pope Julius II., a great patron of the arts, having heard of Raphael's celebrity, invited him to the Eternal City, and received him with the most flattering marks of distinction. He was first employed on the frescoes in the Stanze of Raphael in the Vatican. The first of these works painted in the Stanza della Segnatura was the "Theology," commonly called the "Dispute on the Sacrament;" it was probably finished in 1509, and is painted in Raphael's second, or Florentine,

manner. His later works, including all the other Vatican frescoes, are painted in his third manner, or in that style which peculiarly characterizes him, and constitutes the Roman school in its highest development; it is distinguished for its dramatic composition and expression, for its correct and vigorous design, and, at least in the frescoes, for a grand and appropriate tone of colouring.

In the Stanza della Segnatura are also the frescoes of "Poetry" or "Mount Parnassus;" "Philosophy" or the "School of Athens;" and "Jurisprudence." These were all finished in or before 1511. In the second chamber, known as the Stanza del Eliodoro, are "The Expulsion of Heliodorus from the Temple of Jerusalem;" the "Miracle of Bolsena;" "The Repulse of Attila by Pope Leo I.;" and "St. Peter released from Prison." The two former were painted in 1512, during the lifetime of Pope Julius II.; the two latter in 1513 and 1514, during the pontificate of Leo X. The third chamber, called the Stanza del Incendio, was painted almost wholly by Raphael's scholars; and the fourth, called the Sala di Constantino, was completed from the designs of Raphael, after his death, under the direction of Giulio Romano.

The celebrated Cartoons are the original designs executed by Raphae and his scholars, in 1515 and 1516, as copies for tapestry work for Pope Leo X. The tapestries, worked in wool, silk, and gold, were hung in the Sistine Chapel at Rome in 1519, the year before Raphael died, and excited the greatest applause. Seven of the Cartoons remained neglected in the warehouse of the manufacturer at Arras, and were there seen by Rubens, who advised Charles I. to purchase them. These exquisite compositions are now in the South Kensington Museum. The subjects are: "Christ's Charge to Peter," "The Death of Ananias," "Peter and Paul healing the Lame Man," "Paul and Barnabas at Lystra," "Elymas the Sorcerer struck Blind," "St. Paul Preaching at Athens," and "The Miraculous Draught of Fishes."

Among the many other works in Raphael's third manner are "St. Cecilia" at Bologna; the portrait of Julius II., in the National Gallery; the "Madonna, Infant Christ, and St. John," now called the "Garvagh Raphael," in the same collection; the "Madonna di San Sisto," at Dresden; the "Spasimo," at Madrid; the "Madonna del Pez," at Madrid; the "Madonna del Pez," at Madrid; the "Madonna della Sedia," at Florence; and the "Transfiguration," his last production, now in the Vatican. Three portraits exist which are believed to represent Raphael's mistress, the so-called "Fornarina," painted by himself. Two of these are at Rome and one is at Florence.

Raphael died at Rome on Good Friday, 6th of April, 1520, having exactly completed his thirty-seventh year. He was buried in the Pantheon.

The character of his pencil, its versatility and its purity, are sufficient signs, remarks Kugler, of his marvellous endowments. No master has

left so many works of the highest rank in art—no other so little that is defective or unattractive. He represents a purity and refinement of feeling and form unattained before and unequalled since, and in the combination of which, with power of hand and grasp of mind, he stands alone.

Raphael was about five feet eight inches in height. He had a regular, agreeable, and delicate face, the features well-proportioned, the hair brown, the eyes of the same colour, full of sweetness and modesty; the tone of the face bordering upon the olive; the expression that of grace and sensibility. The rest of his conformation appears to have been completely in harmony with his physiognomy. His neck was long, his head small, his frame feeble; nothing in him indicated a constitution of long duration. His manners were full of charm; his exterior was prepossessing; and his style of dress elegant.

CHRONOLOGY.

A.D.	Age	A.D.	Age
1483 Is born at Urbino.		1504 "Lo Sposalizio"	. 21
1491 Death of his mother	8	1504 Goes to reside at Florence.	. 21
1494 Death of his father			
1495 Studies under Perugino at			
		1509 "Dispute on the Sacrament"	
1502 "Coronation of the Blessed			
		1520 Dies at Rome	



CORREGGIO.

A.D. 1494-1534.

FOUNDER OF THE LOMBARD, OR PARMA, SCHOOL OF PAINTING.

ANTONIO ALLEGRI, surnamed Correggio from the place of his birth, was born in 1494 at Correggio, now called Reggio, a small town near Modena.

From posterity he has obtained the title of "Divine," which he shares with Raphael and Murillo. His name, celebrated by poets, recalls those graceful, sweet, and amiable ideas which are the great charm of the productions of his pencil. It was before one of his works at Parma that Annibale Carracci, in a transport of admiration, exclaimed, "What truth! What colouring! All that I behold here amazes me!" And writing to his brother Angostino, he says, "We paint like men; Correggio paints like an angel." Notwithstanding his great merits, the contemporaries of Allegri troubled themselves very little

about him, and they preserved for posterity scarcely any details concerning his life and his works. Among the writers who have endeavoured to fill up the hiatus thus left in the history of art, some assert that Correggio was born of poor parents of low extraction, and that he died in misery and want; while others maintain that he belonged to a noble and opulent family, and that he left a large fortune to his children. Some authors pretend, against all probability, that he had no other masters than nature and his own genius. To this circumstance they attribute that originality of composition, that easy and flowing pencil, that union and harmony of colours, and that perfect intelligence of light and shade which give an astonishing relief to all his pictures, and have been the admiration both of his contemporaries and successors.

He was the son of Pellegrino Allegri, a tradesman in comfortable circumstances, and he received a good education. Probably he took his first lessons in art from his uncle Lorenzo Allegri, called Tognino, and perhaps he afterwards studied the works of Mantegna at Mantua. None of his biographers state positively whether he visited Rome or Venice, whether he studied the antique, and on what occasion he exclaimed before the first picture which he saw of Raphael's, "Anch'io son' pittore!" ("I also am a painter!") In 1514, when only twenty years old, he was employed to execute a picture of their patron saint by the Franciscan Friars at Carpi. This work is now in the Dresden Gallery. Correggio painted many pieces, both in oil and fresco, for churches and convents. between 1514 and 1520, when he began the "Ascension of our Lord" in the cupola of the Benedictine church of St. John at Parma, In 1523 he painted the famous "St. Jerome" for Briseida Colla, wife of Orazio Bergonzi, for which he received 400 gold imperials, besides some cartloads of faggots, some measures of wheat, and a fat pig. He afterwards executed his masterpiece—the "Assumption of the Blessed Virgin"—in the cupola of the cathedral at Parma; this was finished in 1530. For the preservation of this magnificent work the world is indebted to Titian. When he was viewing it, one of the canons of the cathedral told him that so grotesque a performance did not merit his notice, and that they intended soon to have the whole defaced. "Have a care of what you do," was the reply; "if I were not Titian I should certainly wish to be Correggio."

Correggio married Girolama Merlino, a lovely woman, who is supposed to have been the original of the Madonna in the "Holy Family" known as "La Zingarella," or "La Madonna del Coniglio" (now at Naples), a charming composition representing the Blessed Virgin reposing during the flight into Egypt, with the Infant Saviour resting on her lap. Correggio's wife died in 1529, having borne him four children, the eldest of whom, Pomponio, became a painter of some reputation in Parma.

Correggio himself died suddenly in his native city, on March 5, 1534, and was buried in the Arrivabene chapel in the church of St. Francis. Vasari says that having been paid in copper coin a sum of sixty crowns for one of his pictures, he carried home the load in a sack on his shoulders and died of an overdraught of cold water, with which he refreshed himself on the way. This story is probably apocryphal.

Correggio's ingenious compositions, profoundly thought out, announce a cultivated mind, a taste ennobled by the study of literature, a rare knowledge of the rules of architecture, of sculpture, of perspective, and of optics; moreover, the care which he took to bring his works to perfection, the employment of the most precious and the most costly colours, the fine canvas which he ordinarily used, the plates of copper on which several of his pictures are painted, and finally the excessive expense of his models in relief by a clever sculptor, Bigarelli, show him to have been an artist in easy circumstances, thoroughly conscientious, and more anxious about his fame than the accumulation of riches.

The excellency of Correggio's manner, says Sir Joshua Reynolds, has justly been admired by all succeeding painters. This manner is in direct opposition to what is called the dry and hard manner, which preceded him. His colour, and his mode of finishing, approach nearer to perfection than those of any other painter; the gliding motion of his outline, and the sweetness with which it melts into the ground; the cleanness and transparency of his colouring, which stop at that exact medium in which the purity and perfection of taste lies, leaving nothing to be wished for.

Another charm, observes Fuseli, was yet wanting to complete the round of art-harmony. It appeared with Correggio, whose works it attended like an enchanted spirit. The harmony and the grace of Correggio are proverbial; the medium by which breadth of gradation unites two opposite principles, the coalition of light and darkness, by imperceptible transition, are the element of his style. This inspires his figures with grace, to this their grace is subordinate; the most appropriate, the most elegant attitudes were adopted, rejected, perhaps sacrificed to the most awkward ones in compliance with this imperious principle; parts vanished, were absorbed, or emerged in obedience to it. This unison of a whole predominates over all that remains of him, from the vastness of his cupolas to the smallest of his oil pictures. The harmony of Correggio, though assisted by exquisite hues, was entirely independent of colour; his great organ was chiaroscuro in its most extensive sense. The bland central light of a globe, imperceptibly gliding through lucid demi-tints into rich reflected shades, composes the spell of Correggio, and affects us with the soft emotions of a delicious dream.

Several of Correggio's finest works are preserved at Dresden, including "The Reading Magdalen," one of the most admired pictures in the world; the so-called "St. George," representing the Madonna enthroned; and "The Nativity of Jesus Christ," known under the title of "The Night." His picture of "Jupiter and Io" is preserved at Vienna. The Louvre possesses "Jupiter and Antiope" and "The Mystical Marriage of St. Catharine of Alexandria with the Infant Jesus." In the National Gallery are the famous "Ecce Homo," purchased by the English Government for 11,500l.; the "Vierge au Panier," representing the Madonna dressing the Infant Saviour; and "The Education of Cupid." The "Christ in the Garden with the Magdalen" is at Madrid. Among the pictures at Parma are the "St. Jerome" or "The Day," and the "Madonna della Scodella," representing the Holy Family resting on the flight into Egypt. "Christ on the Mount of Olives" is in the Duke of Wellington's gallery at Apsley House; and a magnificent picture of four Saints—"St. Peter, St. Margaret, the Magdalen, and St. Anthony of Padua"—is one of the chief treasures in the collection of Lord Ashburton in London.

CHRONOLOGY.

A.D.		Age		Age
1494	Born at Correggio (or Reggio),		1523 Paints "St. Jerome"	29
	Duchy of Modena.		1528 Finishes the "Madonna della	
1514	Paints "St. Francis of Assisi"	20	Scodella"	34
1520	Begins the "Ascension" in the		1529 Death of his wife	35
	church of St. John at Parma	26	1530 Finishes the "Assumption" in	
1521	Birth of his eldest son Pom-		dome of Parma Cathedral .	36
	роніо	27	1534 Dies at Reggio	40



TITIAN.

a.d. 1480-1576.

THE VENETIAN SCHOOL OF PAINTING.

According to the commonly received account he was born in 1477, but more probably in 1480, at Capo del Cadore, a small town on the borders of the river Pieve, about five miles from the Alps, and dependent on Cadore, on the confines of Friuli, under the Venetian government. His parents were called Vecelli, of an honourable family, to which belonged St. Titian, Bishop of Odezza, from whom, no doubt, the artist derived his name. When a child, nine or ten years old, Tiziano Vecelli was sent to Venice to be placed in the house and under the care of his father's brother. The father of Titian having perceived in his son, even at a tender age, a particular bias towards the arts, took this step with a view to forward his studies in drawing; and his uncle directly carried the child to the house of Sebastian Zuccati of Treviso and his brother Francis to be in-

structed by them in the principles of the art; for these two were the only masters in mosaic work, which they had brought to the highest degree of perfection.

From thence he was soon removed to the tuition of Gentile Bellino. Titian could not endure, however, to follow the dry and laboured manner of Gentile, and applied to his brother Giovanni Bellino, under whose guidance he made rapid progress. Indeed he soon was able to imitate his master's style so exactly that their works could scarcely be discriminated. This style, however, was stiff and dry, but, guided by his genius, by the study of nature, and by the example of Giorgione, his fellow-pupil, he was not long in acquiring a bolder touch and a more vigorous manner. Such was his facility that he soon vied with Giorgione also, and rendered him so jealous that all connection was broken off between them.

Titian attained to excellence in the three branches of landscape, portrait, and history. He is universally acknowledged to be the great master of colour; and as his taste in design was a less conspicuous part of his merit, it is in portrait and landscape that he is peculiarly regarded as unrivalled.

After the death of Giovanni Bellino (1512), the Venetian governmentemployed Titian to finish a composition which that painter had left imperfect. It represents the homage of the Emperor Frederic Barbarossa to Pope Alexander III. The Senate recompensed Titian by giving him the office of broker of the German warehouse—a lucrative post which was usually conferred on the most eminent painter of the city. Titian's reputation soon spread throughout the whole of Italy. The Duke Alphonso I. of Ferrara, who was embellishing his palace of Castello, put the artist's talents in requisition in order to render that abode worthy of the magnificence of a great prince. While at Ferrara Titian also painted four famous mythological pictures, besides portraits of the Duke's wife, the celebrated Lucrezia Borgia, and of Ariosto. In 1515 he returned to Venice, having refused a pressing offer from Leo X. to visit Rome. Another invitation from Francis I., King of France, was also declined, as Titian always preferred domestic happiness to the most brilliant promises of fortune. It is much to be regretted that Titian did not visit the Eternal City at an early period of his life, for, as Padre Bastiano del Piombo observed, "had he been at Rome and seen the works of Michael Angelo, those of Raphael, and the antique statues, and had attended more to correct drawing and proportion, he would have produced miraculous works, seeing the practice he had in colouring, and his being undoubtedly the most faultless imitator of nature of his time. Could he but have acquired correctness of outline, the world would then have seen a perfect painter."

Titian did not again leave Venice, except to revisit the scenes of his

childhood, until 1529, when he went to Bologna to paint the portraits of the Emperor Charles V. and Pope Clement VII. Charles not only granted him a pension, but sent him, at a later date, the cross of Chevalier and the diploma of Count Palatine. When his courtiers made envious remarks about the deference he paid to Titian, the Emperor replied, "I can easily create a duke, but where shall I find another Titian?" On another occasion, when the artist dropped his pencil, the Emperor hastened to pick it up, and presented it with the remark, "Titian is worthy of being served by Cæsar!" Charles, who seemed unable to do without Titian, summoned him on two occasions to Augsburg (1548 and 1550) and once to Innsbruck; but recent researches have rendered it very doubtful whether Titian ever visited Spain, as he is commonly reported to have done. He was invited to Rome by the Cardinal Farnese, in the pontificate of Paul III., whose portrait he painted.

Titian's life was a continued triumph. Among his friends he numbered the greatest artists and authors of his time, including Ariosto, Aretino, Vasari, Bembo, Veronese, and Bernardo Tasso. He loved pleasures, but in moderation; and he led at Venice a magnificent and almost royal life. He continued to practise his art until within a few days of his death, which was caused by the plague in September, 1576, when, according to the commonly received account, he was ninety-nine years of age.

Posterity has placed Titian by the side of Raphael and of Correggio. If he yields to the former in the ideal beauty of forms and the philosophy of expression, and to the latter in chiaroscuro, he is superior to them both in colouring and faithful imitation of nature.

Among his very numerous works are the following gorgeous church pictures:—"Christ with the Tribute Money," at Dresden; "The Assumption of the Blessed Virgin," his grandest achievement, at Rome; "The Pisaro Family;" "The Cornaro Family," in the possession of the Duke of Northumberland; the celebrated picture of "The Entombment," in the Louvre; "Christ crowned with Thorns," in the Louvre; "Peter Martyr," which was burnt in the sacristy of SS. Giovanni e Paolo in 1866; a large altar-piece of "The Presentation of the Blessed Virgin," in the Venice Academy; and "St. Jerome," in the Brera.

His pictures on mythological subjects include "Bacchus and Ariadne," in the National Gallery, a work which presents on a small scale an epitome of all the characteristic beauties of Titian in composition, colour, and form. This is one of the four pictures painted for the Duke of Ferrara. Two of the four are at Madrid. The first is "A Sacrifice to the Goddess of Fertility;" the second is "A Bacchanal;" the last of the series is "The Feast of the Gods," the property of the Duke of Northumberland. "Diana and Actaeon," "Diana and Calisto," "The Three Ages," and "The Venus à la Coquille" are in the Bridgewater Gallery; "Venus and Adonis" is in the Madrid Gallery, and also in the National Gallery.

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With Titian commenced that form of fancy female portraits which, under various disguises, afforded opportunity for the delineation of youth and beauty. Among these are the so-called "Daughter of Titian;" "Salome;" "Titian and his Mistress;" "La Bella di Tiziano;" and "Flora."

Nearly every great potentate of Europe of the sixteenth century was painted by him; and soldiers, statesmen, poets, and ecclesiastics almost without number were among his sitters. Perhaps the most remarkable picture existing of any individual is Titian's portrait of "The Emperor Charles V. on Horseback," in the Madrid Gallery.

The works of Titian are said to be upwards of six hundred in number.



PETER PAUL RUBENS.

A.D. 1577-1640.

FLEMISH SCHOOL OF PAINTING.

HE was born at Siegen, in Westphalia, at a period of trouble for his family, on the 29th of June, 1577.

His father, John Rubens, whom Anne of Saxony, wife of William the Taciturn, had chosen to be her secretary, after having been imprisoned in the citadel of Dillenberg, in consequence of his intimate relations with the princess, was living "interned" in the little town of Siegen. This favour—for it was a favour to John Rubens to live no longer in a prison—had been granted to him at the urgent request of his wife, Mary Pypelinx, who, generously forgetting the wrongs he had inflicted on her, asked that he should be allowed to undergo his punishment with her, and in liberty. But this public captivity, which at first seemed sweet to the prisoner, soon became almost insupportable, and

in 1578 he obtained leave to fix his residence at Cologne, where he died in 1587.

In the year following the death of her husband, Mary Pypelinx removed to Antwerp, with which city the renown of her illustrious son is inseparably connected. Rubens entered the studio of Otto Venius in 1596, having first served an apprenticeship with Tobias Verhaegt, a landscape-painter, and also studied under Adam Van Noort. He entered the guild of St. Luke at Antwerp in 1597, and started fc1 Italy in the spring of 1600, making Venice his first halting-place. At Mantua he became familiar with the manners of courts—a natural element to the future diplomatist; and he was occupied in copying the most magnificent examples from Giulio Romano's hand.

He left Mantua on his first mission to Madrid, deputed by the Duke Vincenzio Gonzaga to Philip III., to take charge of some beautiful horses which were intended for the king, but secretly entrusted to convey a large Mantuan bribe to the Duke of Lerma, then Prime Minister of Spain. After his return to Italy he resided successively at Rome, Florence, Milan, and Genoa.

On the death of his mother (1608) he returned to Antwerp, where, by the persuasion of the Archduke Albert, and the Infanta Isabella, he was induced to take up his residence, accepting the title of official painter, with a salary of 500 florins.

In the street which bears his name stand portions of the palatial residence in which the rest of his life was spent. It was bought by him in 1611, and, with the exception of the months occupied by his embassies into Spain and England, and by some other short journeys, there he dwelt, there the great pictures began to live under his hand, there, according to his own boast, he coined gold with the palette and the pencil, and there, in the ripeness of a good old age, this "prince of painters and gentlemen" died. At Antwerp he married his first wife, Isabella Brandt, the sister-in-law of his brother Philip (1609).

In 1621 he received a commission from Marie de Médici to adorn the gallery of the palace of the Luxembourg, at Paris, for which, with the aid of his pupils, he executed the well-known series of paintings, exhibiting the principal events of the life of that princess. The whole were completed in four years.

In 1627 he was sent by the Infanta Isabella to the Hague, to ascerain from Sir Balthasar Gerbier, the agent of Charles I. of England, whether an agreement could not be effected between England and Spain, which Powers had been at war for some time. With the same object in view he was despatched on diplomatic missions to Philip IV. of Spain and Charles I. of England, and eventually he had the satisfaction of bringing the negotiations for a peace between the two countries to a successful termination. Both these sovereigns bestowed upon him signal marks of favour, and did not overlook in the ambassador the talents of the painter. King Charles I. engaged him to paint the ceiling of the Banqueting House at Whitehall, the design being the apotheosis of James I. His allegory of "Peace and War," now in the National Gallery, "St. George," and other works were also presented by him to the king, who conferred upon him the honour of knighthood, giving him at the same time the royal sword and a massive gold ring. On leaving England Rubens again visited Madrid, to explain to Philip the means by which he had brought about so happy a result to the negotiations; but he hurried back as soon as possible to Antwerp, where, in November, 1630, he married his second wife, Helena Fourment, one of his nieces, a beautiful girl of sixteen.

After a career marked by all the distinctions that fame and universal admiration could bestow, accorded to him in the triple character of painter, diplomatist, and man, he died at Antwerp on the 30th of May, 1640.

The pictures ascribed in whole or in part to Rubens amount, according to Smith's catalogue, to the enormous number of 1800, or, estimating the number of years he was actually engaged in the practice of his art, to nearly one a week. Among them are "The Descent from the Cross," his masterpiece, and. "The Erection of the Cross," both in Antwerp Cathedral; "Communion of St. Francis," at Antwerp; "Battle of the Amazons," at Munich; the small "Last Judgment," also at Munich; "Lot and his Daughters leaving Sodom," in the Louvre; "Adoration of the Magi," at Antwerp; "St. Theresa delivering from the Flames of Purgatory Bernardino de Mendoza, the Founder of the Theresian Nuns at Valladolid;" "Crucifixion of St. Peter," at Cologue; "Rape of the Sabines," in the National Gallery; "The Judgment of Paris," in the National Gallery; "Castor and Pollux carrying off the Daughter of Leucippus," at Munich; six pictures at Vienna illustrating the feats of the Consul Decius Mus; "The Garden of Love," at Madrid and also at "The Four Philosophers," at Florence; the celebrated "Chapeau de Paille," in the National Gallery; "Daniel in the Lions' Den," at Hamilton Palace; "The Four Quarters of the World," at Vienna; the "Prairie de Laeken," in Buckingham Palace; "Rubens' Country House," in the National Gallery; and the famous "Rainbow" landscape in the collection of Sir Richard Wallace.

His character as a painter consisted essentially, says Kugler, in those qualities which no other master had ever before united in so high a degree, viz., in a truthful and intense feeling for nature, a warm and transparent colouring. a power of picturesque keeping, and a wealth of fire and imagination which embraced every object capable of representation, and enabled him to render with equal success and originality both the most forcible and the most fleeting appearances of nature. It is this combination, in such a degree, of qualities so various, that disposes the

connoisseur to tolerate, though not to overlook, the fact that Rubens' heads and figures are seldom of elevated form or refined feeling, but, on the contrary, rude and vulgar in both respects, and continually repeated,—nay, even to admit that he is rarely profound or ardent in sentiment, but too often harsh and coarse.

The person of Rubens is described to have been of just proportions; his height about five feet nine and a half inches; his face oval, with regular and finely formed features, dark hazel eyes, a clear and ruddy complexion contrasted by curling hair of an auburn colour, with moustache and beard; his carriage was easy and noble, his introduction and manners exceedingly graceful and attractive; his conversation facile and engaging, and when animated in discourse, his eloquence, delivered with full and clear intonation of voice, was at all times powerful and persuasive.

CHRONOLOGY.

A.D.		Age	A.D.	ge
1577	Is born at Siegen, Westphalia.		1621-25 Adornment of the Luxem-	
1558	Removes to Antwerp	11	bourg Palace 44-	18
1597	Enters Guild of St. Luke	20	1626 Death of his first wife	
1600	Visits Italy	23	1627 Diplomatic mission to Hol-	
1608	Death of his mother; return		land	
	to Antwerp	31	1628 Mission to Spain	51
1609	Marries Isabella Brandt; is		1629-30 Mission to England;	
	appointed official painter to		knighted by Charles I 52-	53
	the Archduke Albert	32	1630 Second marriage	53
1610	The "Erection of the Cross"	33	1640 Dies at Antwerp	
1612	(circa) The "Descent from the		•	
	΄α . ν	9"		



REMBRANDT.

A.D. 1607-1669.

CHIEF OF THE DUTCH SCHOOL OF PAINTING.

REMBRANDT HERMANSZOON VAN RHYN, that is, Rembrandt, son of Herman of the Rhine, was born in 1607, not in a mill, as is commonly stated, but in his father's house at Leyden. He was the sixth of the seven children of Herman, son of Gerritz, and of Neeljie (Cornelia), daughter of Willems, of the village of Zuydbroek. His parents, who were in tolerably easy circumstances, and the owners of a mill, placed him in the University of Leyden, with the intention of his studying jurisprudence, but when the youth showed he had a marked predilection for the arts, they do not seem to have endeavoured to prevent him from following so decided a vocation.

His first art-lessons were received from Van Swanenburg, a painter of moderate talent, in Leyden; and he next went to study for a year at

Amsterdam under Peter Lastman, whom he left in order to frequent the studio of Jacob Pinas at Haarlem. After having learnt all that others could teach him, Rembrandt returned to his father's house, and during several years devoted himself to that solitary study from which genius derives its power and originality. At the age of twenty-three he established himself at Amsterdam, in a house which he purchased ten years later. It is not known what paintings he executed prior to his settlement in Amsterdam. A portrait of an old man dated in that very year (1630) is now in the Cassel Gallery. There are also two pictures by him dated 1631, one of which, a "Portrait of a Young Man," belongs to the Queen of England, and the other, "Simeon in the Temple," is in the Museum at the Hague. In the following year Rembrandt painted for the Anatomical Theatre of the College of Surgeons at Amsterdam, "The Anatomist, Nicholas Tulp, and his Pupils," a famous picture—now in the Museum at the Hague which alone would suffice to place the author in the first rank of the This chef d'autre represents Professor Nicholas Tulp Dutch masters. giving an anatomical lecture on a body which is stretched upon a table before which he is sitting; the audience is composed of seven other persons, who are so admirably represented that it appears as if each countenance was penetrated with the explanations the Professor is giving. The pen cannot describe this wonder of the art; here the work of man triumphs in rivalling nature; for the expression of life and the representation of death are so strongly depicted that the impression this picture makes strikes the spectator at first with a feeling of aversion; yet, contemplating the ensemble, one discovers not only the great painter, but also that knowledge of human feelings which speaks so forcibly to the heart, and which corresponds perfectly with what Rembrandt often said to his pupils, "that he had made it a strict rule never to paint anything without following nature."

In 1634 Rembrandt married Saskia, daughter of Rombertus van Uilenburg, pensioner and burgomaster of Leuwarden in Frisia. The eight following years were the happiest period of the artist's life. He received numerous commissions for pictures, and his etchings were also a source of great profit to him. In 1642 his wife died, leaving a son named Titus. Rembrandt married again about 1656, but nothing is known respecting this second marriage, except that it resulted in the birth of two children, who died very young. Repeating without examination the anecdotes collected by Houbraken from unknown sources, many biographers have drawn a portrait of Rembrandt which recent researches prove to be purely fanciful. The documents preserved in the Court of Insolvency at Amsterdam show that in 1656 Rembrandt was under the necessity of abandoning to his son Titus all the real property in which he had a life interest under the will of his first wife, and shortly afterwards he was forced to entrust to a court of law the administration of his own property, which

was sold by public auction. Fortunately for his memory, the inventory of his personal effects has been preserved. It proves that this man, who had been made a type of sordid avarice, devoted nearly the whole of his wealth to the purchase of pictures and engravings by the Italian masters, antique marbles, rare and precious articles of furniture, and objects of art of all kinds. The passion for beautiful works of art and curiosities, and the maladministration of a fortune, estimated at the time of his first wife's death at upwards of 40,000 florins, had been the sole means of reducing Rembrandt to the sad position in which we now see him placed. abandoning to his creditors absolutely everything he possessed, he withdrew into a laborious isolation. He did not leave Holland, however, and it was in his native country that he completed his marvellous series of engravings, and executed those surprising pictures which prove the exalted nature of his genius. Rembrandt finished his days at Amsterdam, and on the 8th of October, 1669, his mortal remains were interred at the expense of public charity, in the Westerkerk (West Church).

Rembrandt, as chief of the Dutch School, is perhaps the most perfect colourist that ever existed. He has clearly shown in all his works that the grand resources of the art consist in subduing gaudy and harsh colours, because they ought not to be used except for bringing out the principal objects. Rembrandt used them with address, either by glazing them over in the manner of the Venetian School, or by blending other tints to lessen that harshness which dazzles the eyes; for by the circulation of air which surrounds all objects, colours receive a reflection from whatever is near them, and consequently all representations of nature ought to participate in those aerial gradations which in Rembrandt's pictures appear to raise the figures from the canvas as if they were animated. As examples of composition, expression, colour, and light and shade, his works rank with those of the greatest artists. order to thoroughly know and appreciate Rembrandt, it is not sufficient to admire his paintings; it is also necessary to examine and study the wonderful engravings, upwards of 360 in number, which he executed between 1628 and 1661, and which amateurs search after with an enthusiasm which every year grows more ardent. As an etcher he has neither equals nor rivals.

Among his chief paintings are "Les Syndies de la Halle aux Draps," or "Warders of the Drapers' Company," at Amsterdam; the "Shipbuilder and his Wife," in the collection of Queen Victoria; the "Jew Merchant," in the National Gallery; and the large composition called "The Night-Watch," at Amsterdam, representing the Archers' Guild going out to shoot at a mark. Of his historical pictures, the most remarkable are: "Duke Adolphus of Gueldres threatening his Father," and "Moses destroying the Tables of the Law," in the Berlin Museum; the "Sacrifice of Abraham," in the Hermitage at St. Petersburg; the

"Woman taken in Adultery" (in the National Gallery), which the descendant of the burgomaster Van Six sold to Mr. Angerstein for 5000l.; the "Descent from the Cross" and the "Nativity," in the same collection; "Christ in the Garden with Mary Magdalen," and the "Adoration of the Magi," in the collection of Queen Victoria; and "Tobit adoring the Departing Angel," in the Louvre. Of his landscapes, of which he painted fewer than of other kinds of pictures, a characteristic specimen is that known as "Rembrandt's Mill," in the possession of the Marquis of Lansdowne.

CHRONOLOGY.

A.D.	Ag	ge	A.D.	Age
1607	Born at Leyden.		1640 Purchases house in the Joden-	
1630	Fixes his residence at Amster-	0,	beestraet	33
	dam 2	23	1642 Paints "The Night-Watch".	35
1631	Paints "Simeon in the Tem-		1642 Death of his first wife	35
	ple"	24	1656 His second marriage and bank-	
1632	Paints "The Anatomist,	1	ruptcy	49
	Nicholas Tulp, and his	- 1	1661 Paints "Les Syndics de la	
	Pupils'' 2	25	Halle aux Draps "	
1634	His first marriage 2	27	1669 Dies at Amsterdam	62



BACH.

A.D. 1685-1750.

FOUNDER OF MODERN MUSIC.

A FAMILY of musicians, whose members have held a respectable position in their art during a period extending over two centuries, is an example of hereditary genius rarely met with in history. The Bach family hold this position in Germany, the cradle of musical art. One member of the family, Johann Sebastian Bach, by his skilful development of the resources of his favourite instrument, the organ, and the flood of masterpieces he composed to enrich the annals of sacred music, not to speak of his labours in other branches of his art, stands apart, not merely among the members of his own family, but deserves, more perhaps than any other composer, through the influence he has exerted among his successors, the title of Founder of Modern Music. He was born at Eisenach, a market-town of Central Germany, in 1685, where his father, a prac-

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tical musician, and sound theorist, held the position of Court musician. Left an orphan at ten, he was taken charge of by his elder brother. organist at Ohrdruff, from whom he received his first lessons on the harpsichord. His progress in his musical studies was very rapid, and finding few or no difficulties in his ordinary lessons he could not readily overcome, he asked permission to practise the more difficult compositions in his brother's library, works by Froberger, Fischer, Buxtehude, and others. Permission being refused, young Bach found means to copy them by stealth, a labour of love which occupied his nights for more than six months. This pupilage was soon ended by the death of his brother, and Bach, thrown on his own resources, found a place as treble singer in St. Michael's Church at Luneburg. While here, he frequently walked to Hamburg to hear Reinke, the celebrated organist, and to Celle to listen to the French band in the service of the reigning prince. The change in his voice compelled him to abandon his chorister's position. and in 1703 he joined the band of the Court at Weimar as violinist; but the organ was his favourite instrument, all his spare time was devoted to it, to counterpoint and to composition, and so rapid was his progress. that he was enabled to accept the office of organist at Arnstadt when hardly twenty years of age. This position he held for three years, occupying his leisure in the close study of the existing masters of his art and in developing the manual skill afterwards destined to make him an organist above all rivals. He made frequent visits to Lubeck, to hear the famous organist Buxtehude, whose works he admired, and once remained there three months, secretly studying his manner. In 1707 Bach was organist at Mulllhausen; a year later he visited Weimar, to play before the Grand Duke, who was so charmed with his execution that he appointed him Court organist at Weimar. During the following seven years he composed many of his principal works for the organ. In 1714 he was appointed concert-master, a position in which he had constant practice in writing orchestral works and instrumental chamber music. Three years later, Bach, whose reputation as an organist had already begun to spread through all Germany, was pitted against the celebrated French organist, Marchand, then on a visit to Dresden, in a trial of skill, but the latter prudently took to flight on the appointed day, to avoid the contest. Bach played alone before the assembled company, and improvised variations on his rival's themes with such rare abundance of ideas and superiority of execution, that all Germany celebrated his triumph as a national victory.

In 1720 he was offered the post of chapel-master to the Court at Kothen; here he remained thirteen years, leading an easy, tranquil existence, exceedingly favourable to the musical studies in which he found so much delight. In 1733 he was appointed musical director to the St. Thomas' School of Leipzig. This position he held for twenty-

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seven years, devoting himself to the education of his pupils, the care of his family, and to the composition of music in every form then known, except dramatic music. His excessive study had injured his eyesight, and operations for cataract, to which his friends induced him to submit, not only failed to prevent coming blindness, but also scriously injured his health. A few years later, in 1750, he died of an attack of apoplexy, in his sixty-fifth year.

Bach was twice married. By his first wife he had seven children; his second bore him thirteen; together, eleven boys and nine girls. All his sons became musicians by profession, but two only attained a

high reputation in their art.

To his extraordinary musical genius, Bach united social qualities that endeared him to his family and friends. He was a good father, a good husband, and a good friend. Every lover of music, no matter whence he came, was received by him with open arms, for though not rich, his hospitality was unbounded. His office and numerous pupils placed him in a lucrative position, but his family was large, and his expenses always treading fast on the heels of his income. As a travelling musician he might have made a large fortune, had he been ambitious to obtain popular applause. Notwithstanding his undoubted superiority as performer and composer over his contemporaries, he was exceedingly modest in his intercourse with them. When asked how he had attained such high proficiency in his art, he said it was by continual application, and those who chose to work in the same manner could be as successful as himself. He seemed to count as nothing the extraordinary genius with which nature had endowed him.

His labour was indeed prodigious; very few of his works were published during his lifetime; but he left an immense collection of manuscripts, now scattered about in various libraries, some of which have been since published, but much still remains unedited, hidden away in neglected corners. The number of cantatas he wrote is estimated at 253; 7 masses of his are known to exist, 149 psalms, and 150 chorals. His works for the harpsichord, with and without accompaniment, are too numerous to mention, and his instrumental works comprised 17 numbers—overtures, symphonies, concertos, &c.

Thirty-eight years after Bach's death, Mozart called attention to the beauty of his church music, written sixty years before and almost forgotten. Zealous amateurs searched up all those precious relics that could be found, and thus saved from destruction what are, even in our days, masterpieces of sacred music. Bach's manual skill as a performer on the organ and harpsichord was far in advance of his time. Works of his own, which he performed with facility, are difficult to play on modern instruments, with all their mechanical improvements. He showed exquisite knowledge of timbre, by the novel and ingenious manner in

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which he combined the stops of the organ to produce new effects; while his thorough knowledge of the construction of the organ itself made him an acknowledged authority in the choice of new instruments.

As a composer, Bach discovered many novelties which have been wrongly claimed for his successors. Gluck is called the father of recitative, but no finer examples are to be found than those written by Bach for many of his cantatas, and especially for his Passion music. Mozart, and even Beethoven, have been credited with the invention of musical effects to be found in Bach's works. No musician has excelled him in the art of combining a great number of voices and instruments together—an art he created himself, for he had few opportunities of hearing orchestral or choral effects on a large scale.

His melody is sometimes fantastic, but it is never commonplace; he seemed to take a pleasure in choosing rough, uncompromising materials for his themes, that at first excite more astonishment than delight, and then proceeds to charm his auditors by skilfully drawing unexpected and pleasing effects from these unlikely sources. His harmony is very effective; it is characterized by boldness rather than by strict adherence to the rigid laws of counterpoint.

The musical idea conveyed by his choruses is aptly compared to that of a people kneeling in respectful adoration before a celestial being, or the cry of triumph of men glorifying God in the incomparable beauty of His creations. Nowhere in the domain of art is the grandeur of religion more worthily celebrated than in the sacred compositions of Johann Sebastian Bach.



HANDEL.

A.D. 1685-1759. THE ORATORIO.

In no art are the idols of one age displaced by the idols of the next so quickly or so effectually as in music. The melody which drew enchanted tears from the eyes of one generation falls flat and insipid on the ears of the next, and creates wonder how the idol ever came to be worshipped, or what strange taste could find beauty in such an oddity. If the test of genius in a work is its power to move the hearts of succeeding generations long after its author and his coterie of friends have passed away, then Handel's "Messiah" deserves to rank with the plays of Shakspeare, the Madonnas of Italian and Spanish art, and the Marbles of Phidias. All the luxury of modern instrumentation can add nothing to the grandeur and effectiveness of his choral masterpieces. Mozart attempted the task in vain, and Beethoven declared that the simplicity of the means by which

Handel had produced such grand effects was little short of magic. Each succeeding decade seems but to add fresh glory to his noble songs; while nearly every other form of musical art is chopped and changed about to suit the passing fashion of the day.

Most of the composer's life was spent in England, his adopted country. He was the son of a surgeon, and born at Halle in Saxony, in 1685, the same year which gave birth to Bach. His musical instincts manifested themselves in early life, but were not encouraged by his father, who intended his son should follow the law as a profession. Young Handel, however, managed to practise secretly on a spinette, till he could play it tolerably well, although he did not know a note of music. In his eighth year he attracted attention by his attempts to play an organ, attempts showing a singular instinct for correct harmony, rendered more conspicuous by his childlike ignorance of written music. His father was persuaded to renounce his intentions, and placed the boy under the tuition of Zachau, an excellent organist, worthy to guide the steps of so promising a pupil. Zachau taught him the elements of music, and then familiarized him with the works of the most celebrated organists of Germany. At ten years of age Handel began to compose sacred musical pieces, which were sung at the principal church in Halle. At twenty he was able to compose music with singular rapidity, was an excellent performer upon the harpsichord and organ, a good violinist, and familiar with the instruments of music then used in the orchestra.

In 1702 he was appointed organist at Halle, but resigned it a year later, and was engaged as second violinist at the Opera at Hamburg, afterwards as organist. While here he nearly lost his life in a duel with one of his best friends, Mattheson, only escaping by the lucky accident of his adversary's sword striking a large metal button on his coat. During his residence at Hamburg he composed a number of works for the church and the opera, besides giving lessons to many pupils. His first work of importance was a kind of oratorio on the "Passion," his second an opera, "Almira," which had a successful run, and was followed by another, "Nerone," not so fortunate.

Handel visited Italy in 1708, where his operas, "Rodrigo" and "Agrippina," written for the Italian stage, were received with extraordinary favour. On his return to Germany, two years later, he was offered and accepted the position of chapel-master at the Court of Hanover, with a good salary and permission to visit England, a voyage Handel was very anxious to make. He arrived in London in 1710, and composed an opera, "Rinaldo," which was performed at the Haymarket, with great success, towards the end of the year. Compelled by his engagement to return to Hanover, he quitted England only to return in 1712. His patron, the Elector of Hanover, ascended the throne of England as George I., in 1714, and Handel, whose prolonged visit to London had

offended him, succeeded in again finding grace in his eyes by writing a symphony, followed by several instrumental pieces, for a fête on the Thames, known as the "Water Music." This, and an apology, reinstated him in royal favour, with an increased salary, and Handel now determined to remain in England. He was appointed musical director to the Duke of Chandos, for whose chapel he composed the celebrated "Chandos Anthems," and for whom he wrote his first English oratorio, "Esther," and the Pastoral of "Acis and Galatea."

In 1720 a society was formed to introduce Italian Opera on the London stage. Handel's services were engaged to promote the enterprise. He went to Italy to engage a company, and his first opera, "Radamisto," met with an exceedingly favourable reception. "Floridante," "Ottone," "Scipione," "Alessandro," and other operas followed with more or less success. The enterprise, however, proved a failure. A rival society was formed, but neither was able to establish Italian Opera permanently in England. Handel had saved 10,000l. during his musical career on the continent, and in England. He lost this and ran himself in debt in an attempt to carry on the opera single-handed against violent opposition. His cherished scheme had to be abandoned, and then, with injured health and bankruptcy before him, he applied himself to the composition of sacred music, his famous Oratorios, the works by which he finally achieved a lasting reputation. The "Messiah" was written and performed in Dublin in 1742, where he had gone on a visit. It received a most favourable reception. An attempt to introduce Oratorio on the London stage with scenic effects met with no encouragement. Handel then resolved to give concerts of sacred music. These were so successful that he continued them annually, and in the course of ten years not only paid off all his debts, but also saved about 20,0001. His excessive labour had weakened his eyesight, and three operations for cataract undertaken to relieve him were unsuccessful. In the end, Handel, like Bach, became blind. When he appeared in public at his concerts he had to be led to the organ, and the grand old man was brought forward to receive the applause of the audience.

The intense activity he had displayed through life began to tell on his bodily strength also; this gradually declined, and, on the seventeenth anniversary of his first performance of the "Messiah," Handel died in his seventy-fourth year. He was buried in Westminster Abbey.

Considering the multiplicity of his employments as director of concerts and operatic manager, it is a wonder how he ever found time to write the fifty operas, twenty oratorios, and great quantity of church music, cantantas, songs, and instrumental pieces preserved in the Queen's Library. He shunned society, never leaving his house except on business. Visitors he refused to see, admitting only three friends to his presence—his pupil, Smith; a painter, Goupy; and a dyer, Hurter. He was

never known to have the slightest affection for any woman, and lived to the end in the most rigorous celibacy. His compositions were written with marvellous rapidity, and relaxation sought only in essaying them on a harpsichord, the keys of which were thummed into spoon-shaped cavities by his incessant practice.

Handel's features retained their noble, handsome lines, even in old age. His figure was tall and erect, though somewhat too stout; and his manner,

when not agitated, expressed a tranquil, agreeable disposition.

CHRONOLOGY.

A.D.	Age	A.D.	Age
1685 Birth at Halle.	0	1713 Settled in London	
1705 Goes to Hamburg; first oper	a,	1718-21 Became Chapel master to	
"Almina"	. 20	the Duke of Chandos, and	
1706 Visits Florence; "Rodrigo	"	composed "Esther," "Acis	
performed	. 21	and Galatea," with many	
1707-8 Visits Venice, Rome, ar	nd	anthems and instrumental	
Naples	22 - 23	pieces for him 33	-36
1709 Chapel-master to the Elect	or	1733 "Deborah"	48
of Hanover	. 24	1738 "Israel in Egypt"	53
1710 First comes to London	. 25	1742 "Messiah" first appeared .	57
1711 "Rinaldo" played; return	to	1751 Becomes blind	66
Hanover; composed a "	Ге	1759 Death	72
Deum' for the Peace	of		
Deutil for the Teace	01		



MOZART.

a.d. 1756-1791.

THE OPERA.

Among those whose genius has contributed to give the Opera its present highly artistic form, Mozart occupies the foremost rank. Born at Salzburg in 1756, the son of a musician, there is no example in history of a more happy musical organization than Mozart's, or of one manifested so early in life. When three years old he attracted attention by his evident delight in seeking out and striking chords on the piano, thirds and sixths specially pleased him. The musical lessons of his sister, five years older, he learned easily, and under the happy tuition of his father began himself to take lessons in his fourth year. In his fifth year he composed little melodies with correct harmony, of a simple character, which were written out for him by his father. The boy had an exquisite ear for pitch, and could detect a slight difference in the tuning of a violin

with singular accuracy. His sister was an admirable player on the harpsichord in her eleventh year. The father, whose position as vice-chapel-master at Salzburg was a poorly paid one, determined to give concerts in various cities to exhibit the precocious talent of his children. Mozart, with his sister, made his first appearance in public at Munich, in his sixth year; afterwards visiting Vienna, Paris, and London, everywhere exciting astonishment, among old musicians even, by his wonderful musical abilities. He could play on the organ, harpsichord, piano, and violin, accompany French and Italian songs at sight, and readily transpose them into difficult keys.

The boy's exquisite sensibility coloured all his actions. He sought the love and friendship of all who came near him with a childlike simplicity that made him a general favourite. One day, as he sat in the lap of the Empress of Austria, he lost his balance and slipped down on the floor. One of the daughters of the Empress, Marie Antoinette, afterwards the unfortunate Queen of France, hastened to lift him up and soothe him "You are very kind," said the little artist of six years; "I will marry you."—"Why her, rather than one of my other daughters?" asked the Empress. "Out of gratitude," said Mozart. "She was very good to me, while her sisters never stirred to help me." To all who came near him he asked one constant question, "Do you love me?" And his little eyes filled with tears if an answer were not quickly given. For his father he had the profoundest respect. "God first, and then papa," was a motto he frequently repeated.

After making the tour of Europe, his father returned to Salzburg, and set to work to give his son a thorough musical education, in theory and practice. He bestowed the greatest care on his education, assisting and encouraging all his youthful essays in composition with the enthusiasm of an artist added to a father's pride. Happy would it have been for poor Mozart if all his later surroundings had been of an equally loving kind. He studied the works of the famous organists of Germany and those of the old Italian masters, and it was this happy combination in his studies of two wholly different schools that prepared him for the task on which his reputation chiefly rests, that of fusing together into a single work the severe harmony of German music with the charming melody of Italy. The position of the family at Salzburg was a hard and unpleasant one, for the father was wretchedly paid. They were obliged to travel about giving concerts to keep out of debt. Mozart sought employment elsewhere without success. He arrived in Paris in 1778, when the contest between the rival musical systems of Gluck and Piccini was at its height, and for six months vainly sought an opportunity to produce an opera. The death of his mother, who had accompanied him to Paris, was a severe blow to him, and he returned to Salzburg, at his father's request, just as his prospects in Paris began to brighten. The time spent

in Paris had not, however, been wasted, for he had the chance of hearing the various kinds of opera then in vogue. He was now appointed concert-master and organist at Salzburg, with a small salary, and permission to travel occasionally to perform his new works in larger cities. "Idomeneo" was composed in 1780 for the Italian Opera at Munich, and was received with great applause in spite of its novelty. This work belonged to no existing school of music. It was as original in its phraseology and development as in its modulation, harmony, and instrumentation, and introduced a new epoch in dramatic music, which has not ceased to influence the stage, even in our days.

Mozart's master, the Archbishop of Salzburg, treated him as if he were a domestic servant, and seemed to be jealous of the applause the young musician won from his admirers. At last Mozart threw up his miserable situation under him and determined to support himself and the young wife he had married by giving concerts and music lessons. The Emperor Joseph of Austria tried to found a German Operatic School, and Mozart wrote his "Belmont and Constanza" to promote this idea. There was, however, strong opposition displayed by the lovers of Italian music at Vienna, and both the opera and project failed. In 1786 he set the "Marriage of Figaro" to music as an Italian opera. The piece was successful, though violently assailed by his rivals and opponents. At Prague its reception was so favourable, Mozart was induced to visit that city, and here he spent the happiest period of his life. His opera of "Don Giovanni" was written in 1787 at Prague, and met with great success there, although coldly received at Vienna. In 1788 he returned to Vienna, and now came the busiest period of his life. It was at this time he began to feel symptoms of a disease of the lungs, coupled with a nervous affection, which often threw him into fits of melancholy. He worked feverishly to drive away his sad thoughts, composing with incredible rapidity, yet all this work bears the stamp of genius and perfection. The fear of an early death took possession of his mind. He thought he had not done enough work to establish his reputation, and he exhausted his strength by incessant labour day and night. It was in this condition he composed "The Magic Flute," an opera wholly unlike anything he had written before. That a dying man could fill a fairy tale with the beauty and freshness of the melody he wrote for it, seems scarcely credible. This opera had an unexampled success at Vienna, being played no less than 120 times running, and was hailed with enthusiasm all over Germany. While he was at work on "The Magic Flute" a mysterious stranger applied to him to compose a Requiem, and paid for it handsomely in advance. Mozart's health was already shattered by his intense labour, and being unable to discover the name of the stranger, the event preyed on his mind until he fancied there was something supernatural about it. He worked at it with the firm conviction it

was his own Requiem; nothing could dispel the fatal delusion. His wife and friends tried in vain to distract his attention, but he continued to work on with restless energy until illness confined him to his bed, and death ended his sufferings at the early age of thirty-six. While on his death-bed he was nominated chapel-master to St. Etienne Cathedral; another still better appointment was offered him at Amsterdam. The ill-fortune which pursued him through life, with brutal masters and petty rivalries, filled up the cup by dangling fame and wealth before

his dying eyes.

In looking over the long list of his works, it is astonishing to think a man who spent so much of his time in travelling about giving concerts and died in his thirty-sixth year, could ever have found time to accomplish so much. He wrote 800 works of various kinds, comprising 18 operas, 49 symphonies, 15 overtures, 70 pieces of sacred music, not to speak of an immense quantity of work he began but left uncompleted. No musician of any epoch has possessed so universal a genius for all the departments of musical art as Mozart. He was the greatest pianist of his time in Germany; his cantatas bear the inspiration of a true religious spirit, and in the Opera he effected nothing less than a complete transformation. "Idomeneo" was a revolution in the Lyrical Drama. change was carried to its highest pitch in "The Marriage of Figaro;" and the Romantic Opera may almost be said to have been created by "Don Giovanni" and "The Magic Flute." His genius rose steadily without a sign of feebleness to the day of his death, and had he lived a few years longer, still grander works than these might have been expected from his fertile pen,



BEETHOVEN.

A.D. 1770-1828, GREATEST OF MUSICIANS.

Ludwig van Beethoven was one of those rare men who appear only at long intervals and make an epoch in an art. He was born at Bonn, on the Rhine, in 1770. Unlike Mozart, young Beethoven showed little or no predilection for musical studies, but his father compelled him to practise on the harpischord daily, in his fourth year. It was not until he had made some progress in his art that his ardour began to be excited. Mozart was a musician by instinct. Beethoven's musical inclinations were intellectual rather than intuitive, and had to be awakened before his interest was excited. His early teachers, Pfeiffer and Vander Eden, laid the foundation for the technical skill which afterwards made him one of the most able pianists of Germany, and a later teacher, Neefe, made him familiar with the grand conceptions of Bach and Handel.

For these works he had an admiration that became a kind of worship in after-life. When eleven years old, it is said he could play the whole of Bach's pianoforte exercises, and had already shown the bent of his genius by composing three sonatas. His early education was neglected, and too exclusively devoted to music; it was not until his twenty-fifth year that he made amends for this by the study of general literature. he was smitten by a veritable passion for reading the great German poets, and the works of Homer, Virgil, and Tacitus, a passion which helped in some measure to relieve the troubles and afflictions of his unhappy life.

In his eighteenth year he went to Vienna to study with Mozart. Recalled to Bonn by the illness of his mother, who died shortly afterwards, he became the main support of the family. In 1792, his two younger brothers having found employment, he returned to Vienna, where, with the exception of short voyages undertaken for business or pleasure, he remained for the rest of his days. The first five years of his residence at Vienna were the happiest of his life. He had excellent patrons, was received into the best society, and became a general favourite by his admirable skill on the harpsichord, although his manners and temper were not of the kind to make or keep friends. When he arrived at Vienna, he possessed a rare talent of execution, but very little knowledge of harmony or composition. These he studied under Haydn and Albrechtsberger. His rapid progress in the study of musical form is due to his own unaided efforts, rather than to any assistance he received from his teachers, whose methods were too scholastic to please his original tastes. Before the year 1800 he had composed twenty sonatas for the pianoforte, a large number of trios and quartettes, as well as his first and second symphonies. The sale of his musical publications brought him very little money, and his position for some years was not an easy one. A pension was at length settled upon him, on condition that he should continue to live in Austria. Then he fixed his residence at Baden, a pretty village near Vienna; and there he would walk about for hours together in the most unfrequented spots, shunning all companionship, composing as he walked. It was his habit never to write down a singlenote, until the whole piece was complete in his head; but this habit did not prevent him correcting and modifying his manuscripts, until he was satisfied with them. His works had already placed him in a high position among composers, when a calamity of the most dreadful kind to a musician—the loss of hearing—gradually fell upon him, and finally rendered him quite deaf. His deafness sorely afflicted him, and had a marked effect upon the character of his compositions, giving them the tinge of passionate melancholy. The secret of the whole life of Beethoven is revealed in his sad complaints over the incurable deafness coming upon him. It saddened his thoughts, and was the cause of the fits

of ill-temper and misanthropic tendencies he manifested. Friends and admirers surrounded him, yet he led a solitary life, and frequently changed his lodgings to avoid visitors. To add to his troubles, he became involved in a law-suit, relating to the custody of his nephew, and for several years he produced but few new works. This nephew was wholly unworthy of the strong affection Beethoven lavished upon him. The boy failed to pass his school examination, and made an unsuccessful attempt to commit suicide. As this was an offence against the laws of Austria, Beethoven was compelled to remove his nephew from Vienna. He went to reside on his brother's estate on the Danube, but the society of his brother's family became insupportable, and he returned to Vienna in 1826. The return journey was undertaken in cold, wet weather, he caught a severe cold, which brought on inflammation of the lungs, succeeded by dropsy, and died in his fifty-sixth year.

Beethoven was never married, but his heart was more than once sensibly affected by the tender passion, even in his mature years. He treated his pianoforte as an intimate friend, to whom he could confide his thoughts and secrets, and taught it to respond in sympathy with all his innermost feelings, making his music the medium for communicating the feelings which swelled his own breast. Beethoven had a fine large head, and was endowed with mental capacity that would have made him a man of mark in any sphere of life. For reading, he had an insatiable appetite, being specially fond of history. He was republican in politics, and composed a symphony in honour of Napoleon, as first consul of France, but tore it up when he heard that Napoleon had made himself an emperor. Afterwards persuaded to recompose it, he replaced the second part—a triumphal march—by a funereal march, to express the loss of his hopes in the man, and called it the "Heroic Symphony."

Rochlitz, who visited Beethoven in his later years, thus describes his personal appearance: He was of short stature, thick-set and bony, slightly round-shouldered, with a full face, somewhat flushed, and brilliant, piercing eyes that seemed to transfix you. His thick black hair fell in uncombed masses round his magnificent head. There was no play in the features, nor in the eyes, so full of life and genius, but an expression of benevolence and timidity, wholly unlike the character his fits of passion gave him. In all his manner, one could see the strained attention to catch every sound, noticeable in the manner of deaf persons of a sensitive temperament. He would speak gaily for a minute, and then sink into a profound silence.

Barbedette, speaking of Beethoven's work and genius, says, "Bach created the typical form of the sonata, the form which is most logical, largest, and most readily adapted to the development of a serious thought, or even that of some capricious fancy, restrained within due limits by the laws of art. The first part explains the subject, and develops its plan,

terminating with a brief synopsis and peroration, then comes a slow movement, lending itself to the inspiration of melancholy, dreamy thoughts; this is followed by a third part, revelling in wild fanta ie; and the whole ends with a fourth, of a lively, captivating character, leaving the auditor under the influence of a pleasing impression. Such is the framework of the sonata, on which, for more than a century, all the great composers have exercised their genius. Haydn composed sonatas for a whole. orchestra, and created the quartet and symphony. Mozart modified it to form the concerto, by making it a grand composition, rich in effects. While Beethoven—passionate, poetic Beethoven—took his predecessors' models, and surpassed them all. He made few innovations on the traditional form of the sonata. He has enriched it with the scherzo, a ravishing interlude that takes the place of the old minuet (the third part). When he does depart from the classical form, it is in his musical trifles, charming in themselves, but only the amusement of a great composer. Beethoven's genius was universal; he has embraced the whole circle of human emotions. It is not in this sense that Michael Angelo, Raphael, and Leonardo de Vinci, though they were painters, architects, and poets, at the same time, were universal. Each of them represents a special phase of human nature. Beethoven has felt all phases, and expressed all; the simple emotions of confiding youth, then the difficulties of life, with the courage that surmounts them, the combat, the victory, and the heroic joy it brings; finally, the exhaustion of a soul broken by the struggle, the deceptions of an unhappy love, the renunciations of earthly affections and thirst for the ideal, celestial contemplation, the solitary communion of man with the Infinite-this is the immense circle which his genins has embraced; Goethe alone in literature has equalled this universality."

BOOK III.

Religion.

RELIGIOUS FOUNDERS-THEOLOGIANS-REFORMERS.

PART I. ORIENTAL RELIGIONS.

INTRODUCTION.

WE live in two worlds: Behind the seen is the unseen, around the finite the infinite, above the comprehensible the incomprehensible.

There have been men who have lived in this world only, who seem to have never felt the real presence of the unseen; and yet they achieved some greatness as rulers of men, as poets, artists, philosophers, and discoverers.

But the greatest among the great have done their greatest work in moments of self-forgetful ecstasy, in union and communion with a higher world; and when it was done, such was their silent rapture that they started back and could not believe it was their own, their very own; and they ascribed the glory of it to God, by whatever name they called Him in their various utterances, whether Apollo or the Muses, Egeria or the Daimonion.

And while the greatest among the great thus confessed that they were not of this world only, and that their best work was but in part their own, those whom we reverence as the founders of religions, and who were at once philosophers, poets, and rulers of men, called nothing their own, but professed to teach only either what their fathers had taught before them, or what a far-off Voice had whispered in their ear.

That highest self-surrender marks the highest point which human greatness can reach, and no ruler, no poet, no artist, no philosopher or discoverer can claim such sway over millions of human hearts as the so-called founders of the ancient religions of the world, whose very names are often unknown to us, and whose glory of countenance no human pencil has ever portrayed.

The ancient religions were not founded like temples or palaces, they sprang up like sacred groves from the soil of humanity, quickened by the rays of celestial light. In India, Greece, Italy, and Germany not even the names of the earliest prophets are preserved. And if in other countries the forms and features of the authors of their religious faith and worship are still dimly visible amidst the clouds of legend and poetry, all of them, Moses as well as Zoroaster, Confucius, Buddha, and Mohammed, seem to proclaim with one voice, that their faith was no new faith, but the faith of their fathers; that their wisdom was not their own wisdom, but, like every good and perfect gift, given them from above.

Moses preached the God of his fathers, of Abraham, Isaac, and Jacob, and the laws which he brought down from Mount Sinai, were written, he says, with the finger of God.

Zoroaster, whoever he was, believed what the patriarchs had believed before him, and the law which he taught was not what wise men had agreed upon, but what Ahuramazda, the Wise Spirit, had revealed to him, as a friend to a friend.

Confucius resented being called the founder of a new faith. "I am a transmitter," he said, "not a maker. I believe in the ancients and love them."

Even Buddha declared that he had come on the same path on which many had come before him; though he, alone of all religious teachers, knew of no heavenly friend to reveal to him what he, the Enlightened, knew.

And Mohammed, when he first taught Islam, that is, Surrender, only proclaimed anew the old God of the fathers, of Abraham, Ishmael, Isaac, and Jacob; what he wrote was not his own, but the words which Gabriel had spoken to him when showing him "the eternal original of the Koran."

What should we learn from these prophets who from distant countries and bygone ages all bear the same witness to the same truth?

We should learn that though religions may be founded and fashioned into strange shapes by the hand of man, religion is one and eternal.

From the first dawn that ever brightened a human hearth or warmed a human heart, one generation has told another that there is a world beyond the dawn; and the key-notes of all religion,—the feeling of the infinite, the bowing down before the incomprehensible, the yearning after the unseen—having once been set to vibrate, have never been altogether drowned in the strange and wild music of religious sects and societies.

The greatest prophets of the world have been those who at sundry times and in divers manners have proclaimed again and again in the simplest words the simple creed of the fathers, faith in the unseen, reverence for the incomprehensible, awe of the infinite—or, simpler still, love of God, and oneness with the All-father.

MAX MÜLLER.



MOSES.

PREVIOUS TO SIXTH CENTURY B.C.

THE HEBREW LAW-GIVER.

In one of the churches of Rome stands the immortal work of Michael Angelo, the colossal statue of Moses. The prophet is represented in a sitting posture, holding in his right hand the tables of stone; his left touching the long beard which falls upon his breast. This statue has been called "the incomparable masterpiece of its author, and perhaps of modern sculpture." We cannot affirm that the statue looks like Moses, but no one can stand in its presence without feeling tempted to say, that it looks as Moses ought to have looked. It is the interpretation of one great genius by another great genius.

The subject of this statue is for us by far the most important figure of antiquity. He was a Hebrew, born in Egypt at the time of her greatest prosperity. He is the reputed author of the Pentateuch, the

name given to the first five books of the Bible. The Jews call them Thorah, the Law. These books are too well-known to need special exposition. Genesis is the history of creation and of patriarchal life; Exodus, an account of the migration from Egypt and the foundation of the Hebrew law; Leviticus is a book of religious ceremonial regulations; Numbers, a book of statistics; and Deuteronomy, a continuation and completion of the law.

The two noblest things to be found in the Pentateuch are the account of the origin of the world in Genesis and the great ethical and civil code known as the Decalogue. It is these two things which, taken together, form the religious system accepted by Europe and America, and is the highest of that class known to scholars under the name of Monotheism. We find in apocryphal works an explanation of how Abraham first came to worship, in the midst of idolaters, the one, invisible God. How he first lifted up his eyes, and saw a brilliant star, and said, "This is God;" but when the star paled before the brightness of the moon, he said, "This is God." And then the sun rose, and Abraham saw God in the golden glory of the sun. But the sun, too, set, and Abraham said, "Then none of you is God, but there is one above you, who created both you and me. Him alone will I worship, the Maker of heaven and earth." Such is the possible origin of Monotheism. In the Confessions of St. Augustine will be found a similar idea.

In the first of the sacred writings, Genesis, the author appears as the philosopher or theosophist, in the Decalogue as the teacher and moralist. We usually state his claim to our reverence and love in these words: "He wrote the Ten Commandments and the first chapter of Genesis."

But he may also be considered from another point of view. He established a government—a government different from that of Rome or Greece—one of that kind to which Josephus was the first to give the name of Theocracy, a government under the control of deity. The true title of Moses, the grandest character of history, is the law giver. A few words will suffice to explain what is meant by the law, as the Hebrews, and after them other nations, understood it. Suppose one should define and write down all the relations, public and private, which unite the members of a people together, and in addition to these, all the principles upon which these relations are founded. The result would be an ensemble, a complete body, a system, more or less rational, which would be the perfect expression of the mode of existence of that people. Now it is such a system as this to which the Hebrews gave the name of Thorah, the Law, or the Constitution.

This body, the Law, would be made up of several parts having distinct propositions, some establishing the general relations of the citizen, others which are laws in the more limited sense; commanding or forbidding certain things, attaching a penalty for disobedience, showing the

MOSES.

guilty the punishment which the nation will inflict or cause to be inflicted upon him for the sake of the safety of its members. Others, still, are such as prescribe simple measures for the regulation of affairs, while, finally, others under the name of precepts trace out the duties to be performed, no punishment being threatened, but only showing the general evil, which, in the natural order of things, ever accompanies infidelity to the principle of the Supreme Good. "If the law-giver, educated in all the wisdom of the Egyptians, departed most widely from the spirit of Egyptian polytheism in the fundamental principle of his religious institutes," says Milman, "the political basis of his state was not less opposite to that established in the kingdom of the Pharaohs. He was the first; and certainly the most successful legislator of antiquity, who assumed the welfare of the whole community as the end of his constitution." With Hebrews, there were none of those disastrous distinctions of caste established among the Egyptians, and with the Brahmans; nothing of that spirit of disdain in one order for those in another order; neither those barbaric laws, concentrating in a favoured portion of the nation all knowledge and all authority. With the people of Jehovah, everything tended towards a natural equality; the whole nation was one great caste, that of husbandmen, cultivating their own property.

The social system of Moses was a democracy, based upon the notion of duty. He proclaimed the equality of men before the law, the sense of duty the sole origin of law, no such thing as justice, no equality being possible without it. The perfect equality then, in the sight of their God, the Eternal, seems to be the mark by which the Hebrew theocracy was distinguished, strangely resembling, in many respects, its modern Puritan ideal of an industrial commonwealth.

Their warfare was characteristic of an industrial people. We again quote from Milman:—

"The war in which the Hebrew tribes were embarked was stripped of none of its customary horrors and atrocities; nor was it till their savage and unrelenting passions had fulfilled their task, that the influence of their milder institutions was to soften and humanize the national character. Their enemies were designated; appointed limits fixed to their conquests; beyond a certain boundary the ambitious invasion, which before was a virtue, became a crime. The victorious nation was suddenly to pause in its career. At a given point their arms were to fall from their hands, the thirst of conquest subside, and a great, unambitious, agricultural republic was to arise in the midst of the desolation their arms had made."

"The sanction on which Hebrew morals depended was, if possible, more extraordinary. The law-giver, educated in Egypt, where the immortality of the soul, under some form, most likely that of metempsychosis, or the transmigration of the soul, entered into the popular belief, nevertheless maintained a profound silence on that fundamental article, if not of political, at least of religious legislation—rewards and punish-

ments of another life. He substituted temporal chastisement and temporal blessings. On the violation of the constitution followed inevitably blighted harvests, famine, pestilence, barrenness among their women, defeat, captivity; on its maintenance—abundance, health, fruitfulness, victory, independence."

In this respect it presents a contrast to the great organization which succeeded it, the Roman Catholic Church. This distinction has been clearly defined by Fleury: "In the manners of the Roman Catholics we see the life of those whose thought and occupation is not of earth, but in Heaven, and who, while still in the flesh, yet live according to the spirit. In the manners of the Hebrews, on the other hand, we see the best use of temporal goods, and the aim to pass in the way the most rational the life spent upon earth."

As yet we have said little of the man. The following interesting passage occurs in Strabo:—

"Moses, an Egyptian priest, who possessed a considerable tract of Lower Egypt, unable longer to bear with what existed there, departed thence to Syria, and with him went out many who honoured the Divine Being. For Moses maintained and taught that the Egyptians were not right in likening the nature of God to beasts and cattle, nor yet the Africans, nor even the Greeks, in fashioning their gods in the form of men. He held that this only was God-that which encompasses all of us, earth and sea, that which we call Heaven, and the Order of the world, and the Nature of things. Of this who, that had any sense, would venture to invent an image like to anything which exists amongst ourselves? Far better to abandon all statuary and sculpture, all setting apart of sacred precincts and shrines, and to pay reverence without any image whatever. The course prescribed was, that those who have the gift of good divinations, for themselves or for others, should compose themselves to sleep within the Temple; and those who live temperately and justly may expect to receive some good gilt from God-these always, and none besides."

In early manhood he was, to all intents, an Egyptian, as the following account from Josephus and others clearly shows:—

"He was educated at Heliopolis, and grew up there as a priest, under his Egyptian name of Osarsiph, or Tisithen. 'He learned arithmetic, geometry, astronomy, medicine, and music. He invented boats and engines for building—instruments of war and of hydraulics, hieroglyphics, division of lands.' He taught Orpheus, and was hence called by the Greeks Musaeus, and by the Egyptians Hermes. He was sent on an expedition against the Ethiopians. He got rid of the serpents of the country to be traversed by letting loose baskets full of ibises upon them. The city of Hermopolis was believed to have been founded to commemorate his victory. He advanced to the capital of Ethiopia, and gave it the name of Meroe, from his adopted mother, Merrhis, whom he buried there.

Tharbis, the daughter of the king of Ethiopia, fell in love with him, and he returned in triumph to Egypt with her as his wife."

Finally we have the Scripture account, which need not here be repeated. The life of Moses, in the later period of the Jewish history, was divided into three equal portions. This agrees with the natural arrangement of his history into the three parts – of his Egyptian education, his exile in Arabia, and his government of the Israelite nation in the wilderness, and on the confines of Palestine.

The prophet combined in himself two qualities rarely found together in the same man; he was here as well as legislator. "If you write the life of Moses, put it down that he slew the Egyptian," that he had the passion and impulse, the indignation of a here. He had also the heroic spirit of daring and enterprise; he found a people in bondage, and he led them out of it and left them free, and it was chiefly as their liberator that they revered him.

Upon the other side we must note two facts. First, that he was bred, not with the slaves, the people of his own nationality, but, according to the curious and beautiful story, saved from death by womanly pity and brought up in the house of a king. Secondly, that he fell into great tribulation, passed years in exile, solitude, meditation; no school like this for maturing plans of a world revolution. With such a heart, such a rearing, and such a preparation, the hero began his career.

The personal characteristics of the prophet are too faintly drawn to admit of any fuller delineation. But one feature is indisputably marked out. On this we quote from Deau Stanley:—

"No modern word seems exactly to correspond to that which our. translators have rendered, 'the meekest of men;' but which rather expresses 'enduring,' 'afflicted,' 'heedless of self.' This, at any rate, is the trait most strongly impressed on all his actions from first to last. So in Egypt he threw himself into the thankless cause of his oppressed brethren; at his earliest call he prayed that Aaron might be the leader, instead of himself; at Sinai he besought that his name might be blotted out, if only his people might be spared; in the desert he wished that not only he, but all the Lord's people, might prophesy. He founded no dynasty; his own sons were left in deep obscurity; his successor was taken from the rival tribe of Ephraim. He himself receives for once the regal title 'the King in Jerusalem;' but the title dies with him. It is as the highest type and concentration of this endurance and self-abnegation that the last view from Pisgah receives its chief instruction. labour and not to see the end of our labours; to sow, and not to reap; to be removed from this earthly scene before our work has been appreciated, and when it will be carried on, not by ourselves, but by others, is a law so common in the highest characters of history, that none can be said to be altogether exempt from its operation."

"Never was there an undertaking more arduous than that on which he

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was commissioned. To lead forth a mob of slaves, debased as only slavery can debase humanity, sunk below the dead level of Pagan Egyptian civilization; to form them into a daring army, a free commonwealth, and a believing Church; to be exposed to all the ready and violent vicissitudes of their desires, and hopes, and fears, and so to have to suffer their manners in the wilderness; to have them upbraid him for their very deliverance when their sensual natures lusted after the flesh-pots of Egypt; to have them talk of stoning him when the wells were dry; to have them dispute with him for his command, and reled against his rule; to have them break their covenant with Jehovah, and turn to the sacred calf of their old Egyptian oppressors—all this was such a burden as was never

laid on any other."

"Each of the two former sections of his life gave its own contribution to the last, with its glorious time of harvest and achievement. was to be victor over Pharaoh, and the emancipator of the Israelites, was trained in the very military school which he was to oppose. Humanly speaking, he could never have so dealt with Pharaoh if he had not enjoyed his Egyptian advantages. As William the Silent was educated in the closet of Charles V., and at the court of Philip II., into the liberator of the United Provinces, and thus turned to account, in the emancipation of his fellow-countrymen, the lessons in diplomacy and military tactics which he had learned from the oppressor himself, so Moses, under God, made his learning in all the wisdom of the Egyptians subservient to the great work of his life. Nay, as he was to stand before the nations the grand champion for spiritual monotheism, in the face of idolatry, materialism, and polytheism, he was first initiated in the system which he was to oppose. Just as Saul of Tarsus was prepared, by his education in the school of Gamaliel, for understanding the real symbolism of Judaism, and thereby advancing the simplicity and spirituality of the Gospel - so Moses was enabled by his Egyptian learning to penetrate to the heart of the religious symbolism of his time; and thus at length he became the instrument of producing an external system in which the eye was made to minister to the understanding, while yet there was no sculptured image of Jehovah to ally it with the idolatries of the nations."

Turn now from the work of the hero to the work of the writer and thinker. Of the cosmogony of Genesis it is necessary to say but little; only this, that of all the theogonies and cosmogonies ever attempted, this is the only one which, if clearly written out in detail, will bear a second reading; the only one which is temperate and decorous; all others contain admixtures of the monstrous, the grotesque; they seem by comparison to be more or less incoherent, the products of minds scarcely sane.

We come finally to consider the crowning glory of all, the Decalogue. The principles embraced by the "Ten Commandments" may be reduced to three:—

- 1. The duty of man never to accord to his fellow-beings, or to any other creatures, that kind of homage which belongs alone to the Deity.
- 2. The right of the people to assemble in a meeting every seventh day, in the interest of the laws and of the prosperity of the country; the duty

of each citizen to divide his time and his thought between civil and religious interests in proportion, at the least, of one to six.

3. The duty of respect to persons and to property, the right of each to be himself respected.

It is not in the twentieth chapter of Exodus alone, that we find the law; there is a chapter in Leviticus, the nineteenth, which contains the same doctrine, though in a less impressive form. This is but the simplest and plainest expression of what are to day acknowledged to be the first principles of good morals. The account given by Dean Stanley closes as follows:—

"What was the substance of the Ten Commandments?.... What has the human race gained by its adoption of what Burckhardt called 'the code of the Beni-Israel'? It is, in one word, the declaration of the indivisible unity of morality with religion. It was the boast of Josephus that whereas other legislators had made religion to be a part of virtue, Moses had made virtue to be a part of religion. Of this, amongst all other indications, the Ten Commandments are the most remarkable and enduring example."

"It has sometimes been attempted to reduce this great character into a mere passive instrument of the Divine Will, as though he had himself borne no conscious part in the actions in which he figures, or the messages which he delivers. This, however, is as incompatible with the general tenor of the Scriptural account as it is with the common language in which he has been described by the Church in all ages. The frequent addresses of the Divinity to him no more contravene his personal activity and intelligence than in the case of Elijah, Isaiah, or St. Paul. In the New Testament the legislation of the Jews is expressly ascribed to him: 'Moses gave you circumcision.' 'Moses, because of the hardness of your hearts, suffered you.' 'Did not Moses give you the law?' 'Moses accuseth you.' St. Paul goes so far as to speak of him as the founder of the Jewish religion: 'They were all baptized unto Moses.' He is constantly called 'a Prophet.' In the ancient language, both of Jews and Christians, he was known as 'the great Law-giver,' 'the great Theologian,' 'the great Statesman.'"



ZOROASTER.

SIXTH CENTURY B.C.

RELIGION OF THE PERSIANS.

It is the time when Solon is giving laws to Greece, when she has for her philosophers Thales and Pythagoras; Rome is in her cradle. Let us leave Buddha to dispute the territory with the Brahmins, Confucius striving to effect the moral reform of China—turn we to the ancient Iran:—

"Persia is in a certain sense the elder brother of the Aryan family, and deserving of especial honour from the rest, since it was the first to assume that importance in the eyes of the world which the family has ever since maintained. The prominence of the Indo-European races in the great drama of universal history commences with the era of the Persian Empire."

In olden times the young Persian was taught to draw the bow and to

tell the truth—two acquirements, neither of which the young Greek took pride to excel in. In the Cyropedia of Xenophon, the Persians are held up as a brave and virtuous race. They have also given to the world one of its three or four great religions. We are able, by the aid of the Indian Veda, to trace out, with some distinctness, the form of the original Aryan faith, held before the separation of the Indian and Persian nations. was an almost pure nature-religion; a worship of the powers conceived to be the producers of all the various phenomena of the sensible creation. But even in the earliest Vedic religion appears a tendency towards an ethical and monotheistic development, and this tendency, afterwards unfortunately checked and rendered inoperative in the Indian branch of the race, seems to have gone on in Persia to an entire transformation of the natural religion into an ethical; of the polytheism into a monotheism; a transformation effected especially by the teachings of the religious reformer Zoroaster. He stands as the author of the Zend Avesta, and as the representative of the principle in religions called Dualism. As with Lycurgus, Romulus, Numa, and others, venerated as inspired legislators, his personal history is wholly unknown. His date is generally assigned to the sixth century B.C., the age which also produced Confucius, Laotze, Solon, Heraclitus, Buddha, and Pythagoras, "the great sixth century."

The general theory of Zoroastrianism, or the Parsee religion, is as follows: In the kingdom of Light reigns Ormuzd, creator and ruler of all that is good. In the kingdom of Darkness reigns Ahriman, prince of darkness, author of all evil, both moral and physical. Around the throne of Ormuzd are the seven angels of light, of which he is the chief; while Ahriman is encircled by seven demons, genii of evil—

"Ormuzd was glorious with light, pure, fragrant, beneficent, daring, all that is pure. Then looking beneath him he perceived, at the distance of 96,000 parasangs, Ahriman, who was black, covered with mud and rottenness, and doing evil. Ormuzd was astonished at the frightful air of his enemy. He thought within himself, 'I must cause the enemy to disappear from the midst of things.'"

The great dualism of Good and Evil, which is the fundamental idea of the religion, does not stop at the single generality; it creates a hierarchy extending to all created things, animate and inanimate, men, animals, insects, vegetables; all of which, according as they are pure or impure, attach themselves to God the Prince of Good; or to Satan the Prince of Evil. Fire and light progressively diminish in intensity; where heat and light cease, matter commences, with darkness and evil, which we must attribute to Ahriman, not to Ormuzd. A countless host of inferior angels and demons are distributed through the two kingdoms, which are in eternal war with each other. But Ahriman and the power of darkness

will in time be vanquished, and over all the universe will extend the reign of light.

"All you that have come from near and far should now listen and hearken to what I shall proclaim. Now the wise have manifested this universe as a duality. Let not the mischief-maker destroy the second life since the wicked chooses with his tongue the pernicious doctrine." "This duality," says Haug, "is threefold, and refers to 1, the two principal spirits; 2, the two lives, viz. this life and the life hereafter; 3, the two wisdoms, viz. the knowledge acquired by study and experience, and the inborn celestial wisdom."

"I will proclaim the two primeval spirits of the world."

"I will proclaim the primeval thought of this life."

"I will proclaim the best in this life."

"All that have been living, and will be living subsist by means of his bounty only. The soul of the pure attains to immortality, but that of the wicked man has to undergo everlasting punishment. Such is the rule of Ormuzd, whose creatures we are."

M. Haug sums up the doctrines of this discourse, which he regards as the foundation of the Zoroastrian creed: Everywhere in the world a duality is to be perceived, such as the good and the evil, the light and the darkness, matter and spirit, the life here, and the life hereafter, human wisdom and divine wisdom. In the universe are two spirits at work, they cause the struggle between good and evil and all the conflicts in the world, which will end in the final victory of the good principle. The principal duty of man in this life is to obey the word and commandments of God. Disobedience is punished by the death of the sinner. Ormuzd created the Idea of the Good; this Idea produced the Good Mind, the Divine Spirit working in man and nature, inspiring devotion, the obedient heart. The Divine Spirit cannot be resisted. Those who obey the word of God will be free from all defects and will be immortal—the good are saved, the wicked punished.

If we turn to the Zend Avesta itself, the Persian Bible, we find that it opens with an account of the creation of sixteen regions by the good power, together with the sixteen evils created by the evil one, in opposition to these places. The first chapter begins something as follows, Persian names and titles being partly omitted:—

"Ormuzd spake to the holy Zoroaster: I created a place, a creation of delight; the first and best of regions and places I created. Then the evil one, who is full of death, created an opposition to the same: A great serpent and winter. Ten winter months are there; two summer months. And these are cold as to the water, cold as to the earth, cold as to the

trees. After this, to the middle of the earth, then to the heart of the earth, comes the winter; then comes the worst evil.

"The second and best of regions and places have I created.

"Then the evil one, who is full of death, created an opposition to the same: A wasp, which is very death to the cattle and the fields.

"The third and best of regions and places I created.

"Then he who is full of death created an opposition to the same: Evil thoughts.

"The fourth and best of regions and places have I created.

"Then the evil spirit, who is full of death, created an opposition to the same: Devouring beasts."

The sixteen regions thus created give to us a most important geographical record of the countries known to the early Iranians, Balkh, Merv, Herat, Cabul, &c. The account goes on with the entire sixteen. In the fifth, sixth, seventh, and eighth countries, "the best of regions and places," the evil one in opposition placed unbelief, slothfulness, and poverty, evil defilement, wicked inexpiable deeds, &c. The remaining eight are very similar: on the one hand, the best of regions and places, the fair, the beautiful, full of pasture grounds; on the other, wicked signs, wicked deeds, wicked tokens. The chapter closes with the words: "There are also other regions, places, plains, and lands."

The second chapter describes the enlargement of the world. "The Heavenly, the Holy Creator of the corporeal world, the Pure" orders the angel, the Shining, first to make an enclosure —

"Thither bring thou the seed of all men and women, who are on this earth, the largest and most beautiful. Thither bring the seeds of all kinds of cattle, which in this earth are the tallest and sweetest smelling. Thither bring the seeds of all foods, which on this earth are the sweetest and best smelling. Make all these in pairs and inexhaustible.

"Let there not be there strife or vexation; no aversion; no enmity; no beggary, no sickness; no teeth exceeding the due proportion; no stature exceeding the due proportion of the body; no other tokens, which

are the tokens of the evil one which he hath made:"

"Every forty years two human beings are born, of every two human beings a pair, one male and one female child. Creator of the corporeal world, Pure One."

"Of a single kind and course are seen the stars, the moon, the sun."

"Creator of the corporeal world, Pure One."

"These have for one day what is a year," &c., &c.

In a later book, belonging to the same sacred series, the work of creation is again described more completely and in an altered form, slightly resembling that given in Genesis.

The world of spirit is complete, the material world is not yet. In priental religions the creation of spirit precedes that of matter. God then creates the universe from nothing, that His power may appear. The work

of creation is divided into six periods, and the earth thus made shall exist 12,000 years. The six periods are thus divided:—1. "In forty days," says Ormuzd, "aided by good spirits (the Amshaspands) made I the heavens. 2. In sixty days made I the water. 3. In seventy-five, the earth. 4. In thirty, its trees. 5. In twenty, its animals. 6. In seventy-five made I man." The work of creation here occupies 365 days, or one year; to each of the six divisions the Parsees appoint festivals. The world will last 12,000 years; the first 3000 is the reign of the Good Principle; the second 3000 that of the Good and the Bad Principles together; while, at the last, the triumph of the Good is assured.

Being now familiar with Parsee cosmogony, we turn to Parsee Ethics. It is generally conceded that the motives of men actuating virtuous conduct may be reduced to four: fear, self-interest, love, and duty. It is said, also, that according to the age of a society, or of an individual, one or the other of these motives will predominate; infancy is specially, influenced by fear, mature age by the sense of duty. It must be confessed that Persia exhibits something of the general character of the Orient, ever regarded as the infant of the human race. The sword of Ormuzd is grand and terrible; the Parsee bows his head before a jealous God; he fears his God's reprobation; prayers and sacrifices are incessant, the sacred fire must ever be supplied with wood, with oil, with perfumes. We find, however, striking exceptions, at least in theory. The origin of the maxim of doubtful orthodoxy, that it is better to plough than to pray, arose among the Persians. And again, "I care not for my body, nor yet for my soul, I sacrifice to the law," exclaims a devout Parsee.

The following are a few of the moral sayings found in the Creed of Zoroaster:—

"Never lie; it is infamous, even when falsehood may be useful."

"We ought not to become answerable for others, for we can hardly be answerable for ourselves."

"True happiness consists in a competence of this world's goods, health, and the approbation of a good conscience."

"To be insensible to the sufferings of our fellow-creatures is the most

dangerous disease of the soul."

"He who sows the ground, with care and diligence, acquires a greater stock of religious merit than he could gain by the repetition of ten thousand prayers."

Virtue, finally, may be summed up in a word—the essence of all—"There are three rules of life, saith the law; purity of thought, purity of word, purity of action."



CONFUCIUS.

SIXTH CENTURY B.C.

CHINESE ETHICS.

Confucius is the Latinized name of the philosopher and historian Kungfu-tse, whose moral influence has held an uninterrupted sway over the Chinese people for more than 2000 years. He was born, according to tradition, 551 B.C., in the little kingdom of Loo, now in the province of Shantung. Most authorities agree in a number of details relating to his early life and subsequent employment, but the reverence in which he is held by his countrymen has embroidered the facts with a drapery of fiction not easy to separate after such a lapse of time. Such, for instance, as that he was a descendant of the Emperor Hoang-ti, who reigned 2600 years before the Christian era. Tradition says that he was married at nineteen, and held a position as district inspector of agriculture. He showed such unwonted zeal and honesty in fulfilling the duties of his new office that

the whole district began to show its effects. "Neglected fields," says the tradition, "were again cultivated, and idleness and misery gave place to labour and abundance." His renown had already begun to spread beyond the narrow limits of his natal kingdom when an event occurred, in his twenty-fourth year, which changed the whole course of his after life. His mother died; Confucius had already become an ardent student of the religious rites and moral doctrines of the older period in Chinese history, then fallen into disuse, and the death of his mother so strongly affected him that he determined to revive them. He resigned his office, and lived in retirement for three years, mourning his loss, in accordance with an old custom. This act of filial piety made a strong impression upon his fellow-citizens, and evidently led to the restoration of ancient funeral rites in honour of the dead; a restoration which has been more or less strictly adhered to by the Chinese nation up to the present day.

Confucius believed that the ancient usages and moral doctrines of the Chinese nation contained the germ of all social and political virtues, and "he longed to establish a school, educate disciples, and publish books for the purpose of spreading his opinions, and regenerating his countrymen."

In his thirtieth year he began to put this plan into execution. fame rapidly spread, admirers and scholars increased. He travelled over China to obtain converts to his revived moral philosophy, and to study the laws and customs of the country. His reputation having preceded him, he was well received wherever he went. His journey, he says, was "honourable, but sterile;" for, while nearly all admitted the justice of his principles, few had the courage to practise them. His school of philosophy, in fact, though it counted many influential adherents, was not fairly established until the third century after his death. On returning to his native place after his wanderings, he turned his house into a school to receive his disciples, who consisted of young men of all stations in life, but more especially men of letters, mandarins, and government officers. He was finally appointed governor of the state of Loo. improved the condition of the people, took a special interest in the poorer classes, their taxes and the manner of collecting them, regarding the agricultural classes as the source of all riches and prosperity, and as deserving of the special cares of the legislature. The success of his system provoked the jealousy of a neighbouring kingdom; intrigues were set on foot to diminish the influence of Confucius, and, finally compelled to retire from office, he sought refuge in the province of Wei, where he lived an exile. Followed by numerous disciples, however, he continued the propagation of his moral philosophy. At the age of sixty-eight, after eleven years' absence, he returned to his native country, and spent the remaining years of his life in completing his works. He died 479 B.C.,

in his seventy-second year, ten years before Socrates was born. His wife and only son were already dead, but a grandson has transmitted the family down to the present day. His descendants form a distinct class in China, the city of Kio-foo-hien, where he is buried, being inhabited chiefly by them. In 1871 there were eleven hundred males living there who bore his name, most of them being of the sixty-fourth generation. The finest temple in China occupies the site of his residence. The statue of Confucius within it represents him as a tall man of imposing

presence, with a large head.

The literature of China is divided into four classes, canonical, historic, instructive, and amusing. The five canonical, or classical works, called the "King," contain the most ancient examples of poetry, history, philosophy, and law, in existence. They were collected and revised by Confucius, aided by his disciples, and have been transmitted to us with scarcely any alteration. The Shoo-king, or Book of Records, a vast political, moral, and philosophic history of China, begins with the reign of Hoang-ti, 2637 B.C., and includes a multitude of documents relating to the four early dynasties of China. It is a complete treatise of social economy as well. Another volume of the King is a history of a special province of China from the year 770 B.C. The Hsiao-king is famous for its dialogue on filial piety.

The doctrines of Confucius are published in three volumes, called the Shoo. The first teaches the art of governing the people with wisdom; the second, how to avoid extremes in life by the aid of knowledge and virtue; the third, "The Great Learning," is a series of dialogues between Confucius and his disciples, on moral and social subjects.

The order and arrangement of the Chinese sacred books is shown in the following table: -

THE FIVE KING.

1. "Changes:" Chinese Cosmology.

2. Histories: Records of early Chinese dynasties.

3. Odes: Patriotic and moral songs.

4. Ceremonials: Manners and customs; code of etiquette. 5. Annals: History of Loo, the native province of Confucius.

THE FOUR SHOO.

[Books of the Four Philosophers.]

1. Table-talk: Sayings of Confucius.

The Great Learning. By a disciple of Confucius.
 The Doctrine of the Mean. By the grandson of Confucius.

4. The Works of Mencius.

"The old Chinese worship is described as a worship of spirits with a fetish tendency, combined into a system before it was possible for a mythology to develop out of it. The spirits (Shin) are divided into heavenly, earthly, and human. Heaven (Thian) is called the supreme emperor. He has innumerable spirits beneath him, as the sun, moon, planets, and constellations. The spirit of the earth is female; to her

belong the spirits of mountains, streams, &c. All spirits in their intercourse with men esteem moral qualities above everything else. doctrine of continued existence after death, among the Chinese, entirely accords with that of the Nature-peoples. Man has two souls, one of which ascends into heaven after death, the other into the earth. There is no doctrine of future rewards and punishments; there is no priestly caste."-TIELE.

So domestic is the religion of the Chinese, that their ancestral rites are simply an extension of their home associations; and this is so effected that the grave has lost its terror, and the tomb is dedicated to joy. The symbolic tablet brings closer intimacy with the unseen than the grave. The Ancestral Temple is the centre of family union, without distinction of rank or wealth; the Ancestral Hall is the open conscience of the people, where duties are laid bare. Here is the family sanctuary; here the youth assumes his virile cap; here marriages are celebrated, and betrothals are announced. &c.

The forms of tablet for father and mother do not differ. piety of the living would fain establish a real union with the dead. Such invocations as the following are common: "Thy body is laid in the grave, but thy spirit dwells in this temple of our home. We beseech thee, honoured one, to free thyself from thy former body, and abide in this tablet henceforth and for ever."

The school of Confucius is semi-political, semi-philosophical, and forms the basis of Chinese civilization. It is not speculative, but a practical system; makes no pretence of explaining the origin of things, but aims to teach social economy, chiefly by moral precepts. mythical, miraculous, and ideal have no place in his philosophy; it is simple rationalism, founding progress on an increase of population, and improvement in national well-being. No founder of any religion can boast of greater success than Confucius, yet, strictly speaking, he did not originate a religious creed; he built up a moral philosophy based on the material wants and tendencies of the human race, making all real advance to consist in self-knowledge.

"So far as we can see," says Clarke, "it is the influence of Confucius which has maintained, though probably not originated, in China that profound reverence for parents, that strong family affection, that love of order, that regard for knowledge and deference for literary men, which are fundamental principles underlying all the Chinese institutions. minute and practical system of morals, studied as it is by all the learned, and constituting the sum of knowledge and the principle of government in China, has exerted and exerts an influence on that innumerable people which it is impossible to estimate, but which makes us admire the power which can emanate from a single soul.

"To exert such an influence requires greatness. If the tree is to be known by its fruits, Confucius must have been one of the master minds

of our race."



BUDDHA.

SIXTH CENTURY B.C.

THE HINDU REFORMER.

On seeing the portrait of a Buddha for the first time, one imagines it to be the likeness of a woman. There is a reason for this appearance; no actual portrait of the founder of Buddhism is known, not with standing the tradition that "a likeness accurate to the life was done by one of his disciples in sandal-wood, and served as a model for all statues and portraits of him found in the North." The truth is that Buddhism made little headway immediately after the reformer's death, but when, three centuries later, it became the state religion, and artists began their work, they gradually evolved a certain ideal; the case being parallel to the growth in Christianity of the types of the Christ, the Virgin, &c., to which the Buddha face is analogous. The Indian artist's aim appears to be simply beauty, and female traits are more perfect than those of men. "He had the twenty-

four marks of beauty," says the native description; "his hair was curly and of deep black, the forehead broad and smooth, the eyelashes like those of a heifer, the eyes jet black. His eyebrows were arched like the rainbow, his eyes ribbed like the leaf of the lotus," a perfect nose, regular cheeks, beautiful hands and feet, &c., &c. All the later images agree in the soft feminine forms; there is an air of great serenity, something of the sphinx in the expression, while the monstrous appendages in the ears-reveal the idol. Many of the Buddhas bear a strange resemblance to the Venus of the Greeks.

The term Buddha in Sanskrit signifies the wise, the enlightened, and is applied in the East, in a manner not unlike our word saint, to a class of persons who lived saintly lives, undergoing the severest penances, penetrating by divine contemplation to the highest truth, teaching to their fellows the law by which men can be saved, and who arrived at last at what is regarded by Buddhists as the highest goal, the Nirvana, heaven, rest, eternal sleep. The chief Buddha, founder of the faith, is supposed to have lived in the sixth century, and his appearance to have signalled a crisis in the history of the East. The Hindu state had reached its apogee, and was ready for the revolution which began its decline. This revolution was a change from aristocratic sentiment and religion to democratic sentiment and religion. Brahmanism was the religion of the Brahman twice-born castes; Buddhism was the religion of all. Two thousand years before Francis d'Assisi, Buddha established the mendicant order. Absolute poverty, perpetual celibacy, a total renunciation of the things of this world, a life in monasteries, such was the foundation which he laid.

The legend of Buddha is the story of the son of a king who voluntarily became a beggar. Here is the record of his conversion:—

One day, starting from the eastern gate of the city, with a numerous retinue, he met upon the way an aged man, broken, decrepit, covered with wrinkles. The young prince shuddered at the sight, and asked the meaning of this. "Sir," was the reply, "in every creature youth is overcome by age: your father, your mother, will come to the same state. There is no other end for living beings." The young man turned back his horse. "I, the future prey of old age: what have I to do with pleasure and joy?"

Another day he saw a man sick with fever, and at another time he saw a corpse. When he learned that these two, disease and death, were the common lot, he fell into deep sadness. Finally he met an ascetic. "This man," he was told, "has renounced all pleasures and desires, he has conquered himself." On this the resolution of the future Buddha was taken. He became an ascetic, a mendicant; he conquered the demon, love of ease, fear, ambition, anger, self-praise, love of fame, all human desires and passions. He made disciples, brought together other ascetics, founded monasteries, preached, originated a new faith.

He saw men divided into three classes: the hopelessly bad; the strictly virtuous; the wavering; the third he will try to redeem.

When he took up his mission, India was cut up into a multitude of little kingdoms reduced to poverty by a series of petty wars between adjoining states. Each community was still further subdivided by its social laws and occupations into rigid class-distinctions. The people, with nothing to hope for in this life, sought consolation in the superstitious doctrine of the transmigration of souls, being completely under the dominion of their priests, who taught them to prepare for a happier state of existence in some other form by a system of liberal payments to the priesthood during this life.

Buddhism was not so much a revolution in existing beliefs, as a new departure from the method of following them. Breaking away from established usage, Buddha proclaimed a universal brotherhood, one that in theory permitted distinctions of caste, but in practice assumed the absolute equality of all men. Salvation came to all through self-denial and charity. It was this doctrine of equality which gave Buddhism so strong a hold on the caste-ridden people of India. Under the Brahmans it was the priest who was the active agent in preparing the way for a happier state. Buddha proclaimed that every man's salvation depended on himself. Purity of conduct, faithfully and persistently practised, was sufficient to raise every one to the highest state of bliss—the Nirvana. assures us that everything material is subject to dissolution, and the only escape from this changeability of matter is to free the soul from the passions and frailties of the body, by severe self-denial and the constant practice of charity in the widest sense towards all men and animals. any leaven of the old wicked nature remains, the soul is shifted about by transmigration from one state of being to another, and cannot escape material existence in some form, a degraded being or an animal; but when the evil has been wholly purged out by a long course of self-denial, the soul is set free from all union with the material world, and assumes a condition of unchangeability that may almost be described as nonexistence; for the term which expresses this state, Nirvana, means the annihilation of all thought and feeling, a state of eternal rest-nir expressing negation, and the root va, to breathe, so that the word signifies to be blown out like a candle, or lifelessness. The Buddhist heaven is, in fact. divided into several regions, rising one above the other, each more ethereal: 1. Space unlimited, where life endures twenty thousand ages. of wisdom unlimited, where life lasts forty thousand ages. 3. That where there is absolutely nothing; life here lasts sixty thousand ages. where there is neither thought nor non-thought, nothing without even the knowledge that there is nothing; life endures eighty thousand ages, and beyond this, Nirvana, pure nothing—extinction complete. scale of regions indicates the progressive purification required to attain

the end. "Buddha himself was so penetrated and overcome with the feeling of the infinite, that he was lost to a sense of the world of the seen. 'All is perishable, all is miserable, all is void,' are the words continually on his lips."

The Buddhist Cosmos teaches that worlds are born and die in endless cycles having no beginning, no end; the essential conditions of being are thought, vitality, and space; the physical elements are fire, water, earth, and air; the attributes of matter are form, sound, substance, &c.; the qualities of living bodies are elasticity, power of aggregation and adaptation, duration, decay, change.

Its Psychology enumerates six senses, considering memory as the sixth. Six classes of Abstract Ideas, corresponding with the six senses, and fifty tendencies or faculties, such as attention, indifference, thought, reflection, memory, joy, envy, pity, love and hate, fear and rashness, doubt, faith, and delusion, &c.

Its three main theories are, the transmigration of souls, common to Brahmanism; the doctrine of Nirvana; the chain of cause and effect. The cause or antecedent of the two great evils of the world, old age and death, is sought and found to be in birth; the cause of birth is previous existence, the cause of previous existence is attachment, and of this attachment, thirst, and this is traced to sensation, and sensation is the result of the six senses. What is the cause of the six senses?—name and form, Namarupa; and the cause of Namarupa?—consciousness; and the cause of this?—concepts, imagination, the mirror, illusion; and the cause of illusion?—primitive ignorance, the root of all—the original link from which is forged the entire chain.

Its creed is summed up in a formula called the Four Great Truths. 1. Misery always accompanies existence. 2. All modes of existence, whether of men or animals, in earth or heaven, are the result of passion 3. There is no escape from existence except by the destruction of desire. 4. This can be done by following the Four Paths which lead The first path, or stage, is the awakening of the soul to the to Nirvana. truth that pain and sorrow belong to all existence. In the second stage the penitent purifies himself from all vicious desires, revengeful feelings, and delusion. In the third he becomes free from all evil passions, of ignorance, doubt, heresy, vexation, and unkindliness; and in the fourth he reaches the highest stage, where the soul is free from earthly desires and passions—a stage above purity, justice, and even faith itself, described by Buddha as the condition of universal charity. Nirvana is now within the grasp of the saintly penitent, and after this short life on earth he becomes free from all material existence, and enters the final state of rest, Nirvana.

The following are its general precepts, or rules of living:

1. One should not destroy life.

- 2. One should not steal.
- 3. One should abstain from impurity.
- 4. One should not lie.
- 5. One should abstain from intoxicating drinks.
- 6. One should not eat at forbidden times.
- 7. One should abstain from dancing, singing, music, and stage plays.
- 8. One should not use garlands, scents, or ornaments.
- 9. One should not use a high or broad bed.
- 10. One should not receive gold or silver.

These are the Buddhist "Ten Commandments." The first five, prohibitions to kill, steal, commit adultery, tell falsehoods, and drink, apply to all Buddhists, while the last five, the austerities, to eat no animal food, or after midday, to abstain from use of ornaments, money, a bed, and the enjoyment of dancing, apply only to those who take the vows of a religious life. A saint was allowed to possess but eight things—three cloths, serving as a garment, a girdle, a begging bowl, a strainer, needle, and razor.

The cardinal virtues, according to this system, are six-Charity and Purity, Patience and Courage, Contemplation and Knowledge. are Pride, Sensuality, Hatred, Doubt, Love of Life on Earth, Desire for Life in Heaven. Its duties are: Those of parents to children: To train them in virtue, have them taught the arts and sciences, provide them with wives and husbands, give them their inheritance. Those of children to parents: To guard their property, support them in old age, honour their memory. Those of husband to wife: To treat her with kindness. be faithful, cause her to be honoured by others, give her suitable ornaments and clothes. Those of wife to husband: To be hospitable to his friends, be chaste, be a thrifty housekeeper. Those towards friends and companions: Promoting their interests, giving them presents, treating them as equals. Their duties in return: Adhesion in misfortune, offering a refuge in time of danger, guarding property, showing kindness to family. Liberality, courtesy, kindliness, unselfishness, this is the "lynch-pin of the moral chariot."

Its form of prayer :-

"There are five principal kinds of meditation, which in Buddhism takes the place of prayer. The first is a meditation on Love, in which the monk thinks of all beings and longs for happiness for each. Firstly thinking how happy he himself could be if free from all sorrow, anger, and evil desire, he is then to wish for the same happiness for others, and, lastly, to long for the welfare of his foes. Remembering their good actions only, and that in some former birth his enemy may have been his father or his friend, he must endeavour in all earnestness and truth to desire for him all the good he would seek for himself.

"The second meditation is called meditation on PITY, in which the mendicant is to think of all beings in distress, to realize as far as he can

their unhappy state, and thus awaken the sentiments of pity and sorrow over the sorrows of others.

"The third is the meditation on Joy, the converse of the last, in which he is to think on the gladness and prosperity of others, and to rejoice in

their joy.

"The fourth is the meditation on Impurity, in which the mendicant thinks of the vileness of the body, and of the horrors of disease and corruption; how it passes away like the foam of the sea, and how, by the continued repetition of birth and death, mortals become subject to continual sorrow.

"The fifth is the meditation on SERENITY, wherein the mendicant thinks of all things that worldly men hold good or bad; power and oppression love and hate, riches and want, fame and contempt, youth and beauty, decrepitude and disease, and regards them all with fixed indifference, with utter calmness and serenity of mind."

Its Bible, or sacred Code, is the Tri-pitaka, i.e. the three baskets, the first part containing doctrines or practical discourses of the Buddha—poems, legends, folk-lore; the second the discipline of the order; the third a system of metaphysics, "On the elements," "The pairs," the causes of existence, &c. Its Holy Land embraces the provinces of Magadha and Sravasti, lying upon the course of the Ganges, midway between Delhi and Calcutta.

Its chief discipline, by which here below the most perfect happiness possible is attained, is contemplation or ecstasy, the different stages of which are thus defined. The first stage is an inward sense of happiness, born in the soul of the ascetic, when he suddenly finds within him the power to distinguish the profound nature of things; he judges and reasons still, but is freed from conditions of sin. The contemplation of Nirvana, for which he longs, throws him into an eestasy which permits him to ascend to the second stage. Here his purity and freedom from vice remain the same, but judgment and reason are set aside, and his intelligence, now freed and fixed on Nirvana, experiences interior satisfaction, without judging or comprehending it. At the third stage even the pleasure and satisfaction disappear, a vague sense of physical wellbeing supervenes, the pleasure of previous happiness is indifferent, memory still remains, confused consciousness, notwithstanding the detachment nearly absolute to which he has attained. In the fourth and final stage the ascetic no longer feels this sense of well-being, for all feeling, sense, and knowledge, memory and consciousness are gone, he has arrived at perfect impassibility, the nearest approach on earth to the state of the blessed.

In addition to the character of the saint, we have also Buddha in the character of the sage. Like the wise men of Greece, of the same century, he has told us of some of the most difficult things in the world—being poor, to be charitable; being rich and great, to be religious; to lust, and

banish desire; to escape destiny; to be strong without being rash; to see an agreeable object without seeking to obtain it; to bear an insult without anger; to be good, and at the same time to be learned and clever.

Buddhist doctrine in time became recognized as a State religion in some parts of India. A system of dogmas was drawn up as an established code, and councils held to legalize it. The first great council was held shortly after the death of Buddha. A hundred years later a second took place, and 250 B.C. occurred the third great council under the Emperor Asoka, the Constantine of Buddhism. A number of heretical priests were expelled, schisms and disorders adjusted, and the ceremonies of the orthodox creed, which had fallen into disuse, re-established. "At this council the hitherto unwritten creed became fixed, and the decrees of former councils were modified."

Unlike Brahmanism, which held foreigners to be unworthy of its holy influence, Buddhism sought and made converts in all lands. Gradually spreading itself through India and adjacent countries, it carried the elements of Indian civilization to many savage tribes; was introduced in Ceylon shortly after the third council, and embraced by the Chinese about 65 B.C. Later it spread to Japan, Burmah, Siam, Thibet, Mongolia, and parts of Tartary and Siberia. After a time the religion split up into many sects, differing more or less from the "true church." Of these the Mahayana, established about the beginning of our era, and the Yogachara, in the sixth century A.D., are the most important.

During the eighth and ninth centuries Buddhism was driven out of India, "owing to the corruption of the priesthood and the superstitions which had crept into and demoralized the faith." In Ceylon exists a much purer form of this religion.

Wherever Buddhism has held its sway it has left a crowd of temples, monasteries, and sacred buildings containing relics of Buddha, most of which are now in ruins. Some fine examples of their rock temples exist at Ellora and on the islands of Salsette and Elephanta.

Max Müller estimates the Buddhists of the present day to number 480,000,000, about half the population of the world.



MAHOMET.

A.D. 570-632.

RELIGION OF THE ARABIANS.

TRADITION says that Mahomet was an Ishmaelite, the descendant of Ishmael, son of Abraham and Hagar. It was to Abraham the patriarch, founder of the great doctrine of Monotheism, that he looked as his spiritual father; it was this Hebrew idea of the one God which he gave to his countrymen. To learn that "the universe is one, that one government, one system, one idea, one will, orders the whole," is, for a man or a nation, a great awakening.

Let us trace in brief the career of the great Mediæval prophet. He came from one of the noblest tribes of Mecca, the sacred city and centre of Arabian commerce. Left an orphan at an early age, he was reared by an uncle, whose flocks he tended; married at twenty-five to a rich widow, he led for fifteen years a life of retirement and contemplation, at

the end of which time the idea of his mission became fairly developed in his mind. He began to preach-made a few converts; the little handful of men and women were persecuted. On the death of the prophet's wife they emigrated to a rival town, Medina, where they settled, building a place of worship with their dwellings round it. This was the great movement, the emigration (Hegira), and the year 622 is the date of the beginnings of the Arabian nation. They now began retaliating upon their persecutors by plundering their caravans. battle ensued, Bedr, a famous battle, for it decided the fate of Islam; they were victorious-five years later both Medina and Mecca were under the control of the new society. Other cities followed; little by little an army grew up that enforced its will on surrounding tribes. "Become followers of Mahomet, pay us tribute, or fight," Before the death of the prophet, all Arabia had submitted, and threats had been sent to the great potentates of the world, the emperors of Rome and Persia. Once already the Arab hordes had encountered the Roman legions. life and soul of these aggressions was Omar, an early convert, a daring warrior, the "St. Paul of Islam," the real hero of the Crescent. Mahomet died, but the crusade went on. Syria, Persia, and Egypt were before them-"Koran, tribute, or sword"-Damascus was stormed and taken, then Jerusalem, then Balbeck, Antioch, Alexandria, all Persia; Islamism nearly overran the world. It was checked on the West by Charles Martel, and in the East by Leo the Isaurian, but it had won an empire like that of Alexander or Cæsar. Such was the life and work of Mahomet.

In early times the tribes were, it is said, in exactly the same condition as they are now—they had no state, were not a nation but simply an aggregation of families. Ockley thus says of them:—

"The period before the advent of Mahomet is called by the tribes the age of darkness or ignorance. The 'sciences' cultivated by them were those of their genealogies; a knowledge of the stars to foretell the changes of the weather, and the interpretation of dreams. The accomplishments which the Arabs valued themselves chiefly on were eloquence, a perfect skill in their own tongue, expertness in the use of arms, horsemanship, and hospitality. The exercise of arms and horsemanship they were obliged to practise and encourage, by reason of the independence of their tribes, whose frequent jarrings made war almost continual, and they chiefly ended their disputes in field battles, it being a usual saying among them, that God had bestowed four peculiar things on the Arabs: that their turbans should be to them instead of diadems, their tents instead of walls and houses, their swords instead of intrenchments, and their poems instead of written laws."

Their qualities are thus described: "Their minds liberal, their hearts cheerful, their pedigrees pure and genuine; the words flow from their mouths like arrows from a bow, but milder than the breezes of spring,

and sweeter than honey." Their ideal man is pictured in the following eulogium: "He was free and liberal, an eloquent poet, and a successful robber."

Such was the material substratum; nevertheless, a change was preparing. During the sixth century the Arabs had been gradually advancing in moral and political civilization, and their religious ideas had undergone a great change. The decline of their powerful neighbours had allowed them to increase their commerce, and its extension gave them enlarged views of their own importance, and suggested ideas of national unity. It was the prevalent feeling that the time of Arabia had come; she only awaited the appearance of her great man, and her great man came; he came as a theocrat, that is, prophet, sage, and legislator. What Confucius was for the Chinese, Zoroaster for the Persians, Pythagoras and the Seven Sages for the Greeks, Moses for the Hebrews, Mahomet was for the Arabians. When the materials are ready, there arises the great man who puts them together; the mass is organized into a system, a code, a bible, and upon this nucleus a nation is born.

We have here a theocrat of the fullest type. Confucius, like Pythagoras, was philosopher and legislator; Buddha was priest and philosopher; Moses, Zoroaster, and Numa, were priests and legislators; Orpheus was reputed priest and poet; but Mahomet was poet, priest,

philosopher, legislator, and conqueror, all in one.

Coming last of the theocrats, he had special advantages, and he used them well; he was creator of one of the greatest empires of the world, and founder of the last great religion of the world. The advantage that we have in studying him is, that he is near our own age-that he belongs to modern times and not to antiquity. The Arabian supremacy covers in time the period of the Dark Ages, from the century 500 to the century 1000, in which lies embedded the root of modern civilization. The origin of most religions is lost in an obscurity of myth and miracle. That of Mahometanism is as clear as day. Running through the biography of its founder in the lucid pages of Muir, we seem to be reading of a man of our own time; we seem to be acquainted with him; we seem to see him as plainly as we see Luther or Cromwell. This is the peculiarity of the religion of Islam - that of all the religions of the world, it is the one that has the least mystery about it, and especially is there no mystery about its founder. We see the orphan boy tending sheep and goats upon the hills of his native city; then the handsome young man accompanying caravans of merchandise across the desert. He does his work so well that he is called "the faithful," and he wins a rich and noble wife. Then for fifteen years he leads a life of meditation—he is oppressed by the great problems; he sees the follies of life, the idolatry of his fellow-citizens; their love of pleasure. He begins to be dissatisfied with the things of this world. He begins to philosophize; two

or three passages of the Koran present to us these his earliest utterances:—

"By the declining day I swear; verily man is in the way of ruin.

"The emulous desire of multiplying riches and children, employeth you until ye visit the grave. By no means should ye thus employ your time. Hereafter shall ye know your folly, verily ye shall see hell.

"By the war-horses which run swiftly to the battle with a panting noise; and by those which strike fire by dashing their hoofs against the stones; verily man is ungrateful unto his Lord, and he is witness thereof, and he is immoderate in the love of worldly good. Doth he not know, therefore, when that which is in the graves shall be taken forth, and that which is in men's breasts shall be brought to light, that their Lord will on that day be fully informed concerning them?"

Mecca was a great religious centre. From time immemorial it had been the sacred city; pilgrimages to Mecca had been for the Arabs what the Olympic games were to the Greeks. Here was the sharp conflict of religious ideas—Jews, Christians, Magi, mingled with innumerable oriental idolatries, all centered in Mecca, and the temple had become a pantheon. Statues of Abraham, Ishmael, statues of angels and of the Virgin, sacred stones, representations of planets and stars, it had a deity for every day in the year. Meditating amid these influences, his mind was seriously affected: of a singularly impressionable and nervous temperament, the times weighed heavily upon him; perpetually brooding in the solitude of a cave brought on the ecstatic state; he saw visions; he received a call. An impulse like a form and voice said to him, "Cry out! recite! preach!" The word itself conveyed an inspiration. Recitation or preaching was new to Arabia. It had never had an orator, and Mahomet marks in his nation the epoch of its transition from poetry to prose. It had never had a preacher, but it had its poets; at each yearly fair the minstrels sang songs of love and war and competed for the prize. Mahomet could sing no love songs, but he could recite, he could preach, and in tones that quenched all song. He preached Islam, submission to an Almighty.

"He preached Islam," says Deutsch, "and he preached it by rending the skies above and tearing open the ground below, by adjuring heaven and hell, the living and the dead. The Arabs have ever been proficient in the art of swearing, but such swearing had never been heard in and out of Arabia. By the foaming waters and by the grim darkness, by the flaming sun and the setting stars, by Mount Sinai and by Him who spanned the firmament, by the human soul and the small voice, by the Kaaba and by the Book, by the moon and the dawn and the angels, by the ten nights of dread mystery and by the day of judgment. That day of judgment, at the approach whereof the earth shaketh, and the mountains are scattered into dust, and the seas blaze up in fire, and the children's hair grows white with anguish, and like locust swarms the souls arise out of their graves, and Allah cries to Hell, 'Art thou filled full?'

and Hell cries to Allah, 'More, give me more!' . . . while Paradise opens its blissful gates to the righteous, and glory inelfable awaits them."

At the terrible voice of the prophet, love and poesy were hushed in happy Arabia for four hundred years. "All in vain, that is not God." This was his teaching, and this in the beginning was his life. Nothing can be more devout than the opening chapter of the Koran. This chapter, says Sale, is a prayer, and held in great veneration by the Mahometans, who give it several honourable titles: as the chapter of prayer, of praise, of thanksgiving, of treasure, &c. They esteem it as the quintessence of the whole Koran, and often repeat it in their devotions, both public and private, as the Christians do the Lord's Prayer.

"Praise be to God, the Lord of creation,
The all-merciful, the all-compassionate!
Ruler of the day of reckoning.
Thee we worship, and Thee we invoke for help.
Lead us in the straight path,
The path of those upon whom Thou hast been gracious,
Not of those that are the objects of wrath or that are in error."

Such is the Lord's Prayer of the Moslems.

Islamism, as a whole, recognizes four main articles, one belonging to the dogma or theory, the rest to the worship or practice.

The former is the confession of faith which every Mussulman considers as the summary of his religion, viz.: "There is no God but the true God, and Mahomet is His Messenger;" but this article includes six distinct elements: 1. Belief in God; 2. Belief in His angels; 3. Belief in His Scriptures; 4. Belief in His prophets; 5. Belief in the resurrection and judgment-day; 6. Belief in the absolute decree of God, and in the predestination of Good and Evil.

The four articles including worship and practice are: 1. Prayer; 2. Alms; 3. Fasting; 4. Pilgrimage to Mecca.

Under the head of the Prophets, the Koran teaches that God has revealed Himself to various men in divers ages of the world. He gave the Pentateuch to Moses; the Psalms to David; the Gospel to Christ; and the Koran to Mahomet. The happiness promised to the Mussulmans in Paradise is wholly material: fine gardens, rich draperies sparkling with gems and gold, delicious fruits and wines that neither cloy nor intoxicate; but, above all, affording the fruition of all the delights of love, is the society of women having large black eyes, and every trait of exquisite beauty, who shall ever continue young and perfect.

As to the punishments threatened to the wicked, they are hell fire, breathing hot winds, drinking foul and boiling water, eating briars and thorns, and the bitter fruit of the tree of Zacom, which shall feel in their

bellies like burning pitch. Concerning the decrees of God, it is held that everything that has or will come to pass has been from all eternity written on the secret tablet, a white stone of immense size preserved in Heaven near the throne of God. "Whatever is written against thee will come to pass; what is written for thee shall not fail; resign thyself, therefore, to God, and know thy Lord to be powerful; His decrees will certainly take place; His servants ought to be silent." The time of every man's death is so unalterably fixed, that he cannot die before the appointed hour, and that when that is come, no caution whatever can prolong his life one moment, so that they who were slain in battle would certainly have died at the same time if they had been at home in their houses; teaching the people this, makes them fearless and disposed to fight.

Of the four fundamental points of practice, the foremost is prayer. This duty is to be performed five times a day. In the morning before sunrise; when noon is passed; a little before sunset; a little after sunset; before the first watch of the night. Previous to prayer, the faithful are to purify themselves by washing. On the point of fasting they are to go each day, during the month of Ramadan, from sunrise to sunset without food, drink, or any indulgence. The last practical duty is going on the pilgrimage to the holy city Mecca, which every one is obliged to perform once in his lifetime. Next in discipline is the matter of alms. Here the natural liberality of the Arab is made manifest. It is his disposition to be more liberal and hospitable than others, and to give riches away as fast as he obtains them. This habit of prodigality was elevated by Mahomet into a religious law.

Commentators divide the Koran into three general heads: 1. Directions, relating either to religion, as prayers, fasting, pilgrimage; or to civil polity, as marriages, inheritances, judicatures. 2. Histories, chiefly from the sacred writings of the Hebrews. 3. Admonitions, under which head are comprised exhortations to receive Islamism, to fight for it, to practise its precepts, prayer, alms, &c.; the moral duties, such as justice, temperance, &c.; promises of everlasting felicity to the obedient, dissuasion from sin, threatenings of the punishments of hell to the unbelieving and disobedient.

Others establish chronological divisions. "The style of his work," says Muir, "is wild and rhapsodical in the early period, prosaic and narrative in the second, official and authoritative in the last."

One important fact must be mentioned here: the parts of the Koran were not composed at will, as ordinary books are made, but its chapters, without exception, came to the mind of the author while in a certain excited mental state, esstasy or trance. He seemed to have visions of angels, especially of Gabriel; he saw lights, and heard voices, and had sentences put into his mind; these communications were accompanied

by strong convulsions. Sprenger considers it to have been a form of hysteria.

The kernel and doctrine of Islam, Goethe has found in the second Surah, which begins as follows:—

"This is the book. There is no doubt in the same. A guidance to the righteous. Who believe in the unseen, who observe the prayer, and who give alms of that which we have vouchsafed unto them. And who believe in that which has been sent down to thee—(the Revelation) which has been sent down to those before thee, and who believe in the life to come. They walk in the guidance of their Lord, and they are the blessed. As to them who believe not-it is indifferent to them whether thou exhortest them or not exhortest them. They will not believe. Sealed hath Allah their hearts and their ears, and over their eyes is darkness, and theirs will be a great punishment. 'And in this wise,' Goethe continues, 'we have Surah after Surah, Belief and unbelief are undivided into upper and lower. Heaven and hell await the believers or deniers. Detailed injunctions of things allowed and forbidden, legendary stories of Jewish and Christian religion, amplifications of all kinds, boundless tautologies and repetitions, form the body of this sacred volume, which to us, as often as we approach it, is repellant anew, next attracts us ever anew, and fills us with admiration, and finally forces us into veneration."

The person of the founder of Islam is thus described:—

"He was of middle height, rather thin, but broad of shoulders, wide of chest, strong of bone and muscle. His head was massive and strongly developed. Dark hair—slightly curled—flowed in a dense mass down almost to his shoulders. His face was oval-shaped and slightly tawny of colour. Fine, long, arched eyebrows were divided by a vein which throbbed visibly in moments of passion. Great black restless eyes shone out from under long heavy eye-lashes. His nose was large and slightly aquiline. His teeth, upon which he bestowed great care, were well set, and dazzling white. A full beard framed his manly face. His skin was clear and soft; his complexion 'red and white;' his hands were as 'silk and satin,' even as those of a woman. His step was quick and elastic, yet firm, and 'as that of one that steps from a high to a low place.' His whole gait and presence were dignified and imposing. His countenance was mild and pensive. His laugh was rarely more than a smile. 'Oh, my little son!' reads one tradition, 'hadst thou seen him thou wouldst have said thou hadst seen a sun rising.' In his habits he was extremely simple. He visited the sick, followed any bier he met, accepted the invitation of a slave to dinner; mended his own clothes, milked his goats, and waited upon himself. He never first withdrew his hand out of another man's palm, and turned not before another had turned. hand,' says the tradition, 'was the most generous, his breast the most courageous, his tongue the most truthful; he was the most faithful protector of those he protected; the sweetest and most agreeable in conversation; those who saw him were suddenly filled with reverence; those

who came near him loved him; they who described him would say, 'I have never seen his like either before or after.'"

Clarke, in "Ten Great Religions," points out the relations of the three Semitic creeds. Mosaism and Mahometanism both leave God outside the world. "Above all as its creator and ruler, above all as its judge, but not through all and in all. The idea of an Infinite Love must be added and made supreme in order to give us a being who is not only above all but through all, and in all. This is the Christian monotheism. Mahomet teaches a God above us, Moses teaches a God above us and yet with us. Christ teaches a God above us, God with us, and God in us."

PART II. CHRISTIANITY.

INTRODUCTION.

Un oriental me disait un jour: "Vous autres Européens, vous ne comprendrez jamais rien aux religions; car vous n'en avez jamais vu naître parmi vous. Nous autres, au contraire, nous en voyons naître tous les jours." Effectivement, toutes les grandes religions du monde ont commencé en Asie. Et on ne saurait dire que cette activité créatrice soit épuisée. Jusqu'à nos jours, l'Asie a vu apparaître des sectes vivaces. Le Bâbisme, dont les destinées sont loin d'être achevées, est un phénomène tout à fait récent. La possibilité de voir se développer en Asie de grands cyclones religieux, des espèces d'islam, substituant un nouveau coran à celui de Mahomet, cette possibilité, dis-je, ne doit pas être absolument niée. homme qui saurait assez bien l'arabe pour écrire en beau style un livre qui aurait la prétention de représenter la religion d'Adam, pourrait le voir adopté des peuplades voisines de la Syrie. On ferait très facilement accepter à ces tribus, dont l'état n'a pas changé depuis 1200 ans, que Mahomet fut un grand homme pour avoir retrouvé la religion d'Abraham, excellente pour les descendants d'Abraham, mais que la religion d'Adam est chose bien supérieure, puisqu'elle s'applique à toute la postérité d'Adam, c'est-à-dire à l'humanité tout entière. Un feu d'artifice tiré sur la montagne de Safet, et appuyé de quelques millions, passerait facilement pour l'appari tion du Messie; avec des générosités suffisantes, on pourrait faire attester le fait par les juifs de Tibériade et de Safet. D'un coup de main rapide, on enlèverait la Mecque, on détruirait la Caaba, on en ferait un lieu d'immon-Et la religion nouvelle aurait-elle besoin d'une grande originalité doctrinale? Mon Dieu! non. Un Persan de mes amis, qui a longtemps résidé en France, me racontait qu'à son retour en Perse, il faillit malgré lui devenir fondateur de religion. Sa légende courait en quelque sorte devant lui, il essayait vainement de l'arrêter; le bruit des miracles qu'il avait faits le troublait parfois à un tel point qu'il se demandait si ce n'était pas vrai. Son symbole était: Liberté, égalité, fraternité; les gens à qui il communiquait ces trois mots sacramentels tombaient frappés d'étonnement. Ils disaient que c'était beaucoup plus beau que le Coran, et qu'il n'y avait que l'esprit divin que fût capable de révéler des choses si sublimes.

La cause de cette supériorité singulière de l'Asie en fait de créations religieuses tient à certaines facultés dont l'Asie est richement douée et qui nous font à peu près défaut. L'Asie a l'enthousiasme, la foi, l'imagination facile, l'espérance sans bornes, l'audace à feindre, et, dans les cas extrêmes où la cause sainte est poussée à bout, l'imperturbable assurance qui affirme l'idée en dépit de la réalité. Nos races ont infiniment plus de solidité, de sérieux, de droiture que celles de l'Asie; mais, par cela même, elles reculent avec horreur devant ce qui semble une imposture; elles manquent de la légèreté nécessaire pour se laisser enlever; elles n'ent pas cette espèce de duplicité de conscience qui fait qu'en peut être à la fois fanatique et rusé, croyant et habile, dupe et trompeur. sommes trop honnêtes pour soutenir jusqu'au bout ces gageures étranges; s'il nous prenait fantaisie d'essayer, nous nous imaginerions qu'on rit de nous. Cela me rappelle ce bon Vulfilaïc de Trèves, dont parle Grégoire de Tours,1 qui voulut, sur les bords de la Moselle, imiter les Stylites de Syrie et vivre sur une colonne. Les évêques, très sensés, lui firent comprendre que cela ne pouvait convenir à un barbare comme lui, et qu'il ne faut pas essayer, quand on n'est qu'un rustre, d'imiter les hautes parties qui réussissent à Antioche, à Chalcis.

Joignez à cela l'enthousiasme du martyre. Ce sont les martyrs qui fondent les religions. Or, les races orientales trouvent dans les supplices endurés pour la foi une sorte d'âpre volupté. Il n'est pas rare en Asie de voir des gens se faire croyants pour avoir la suprême jouissance de souffrir pour ce qu'ils croient. Pendant que les longues files de martyrs Bâbis se déroulaient dans les rues de Tchéran comme un vivant incendie,² on voyait des personnes jusque-là étrangères à la secte sortir de leurs maisons et se joindre au sinistre cortège des suppliciés pour être torturés avec eux.

Cette incapacité religieuse de l'Europe est la cause de la longue torpeur où végétèrent durant des siècles les mythologies païennes. On sait peu de chose des religions de la race ibérique; mais on ne s'avance probablement pas trop en disant qu'elles furent moralement peu fécondes. La mythologie indo-européenne, introduite en Occident par les Grecs, les Italiotes, les Celtes, les Germains, produisit en Grèce un merveilleux développement des arts plastiques, mais resta, sous le rapport moral, à peu près stérile. Il n'y avait rien à tirer pour l'amélioration des mœurs de dieux sortis d'une primitive intuition de la nature, pleine de poésie, mais vide de sens moral. De là ce phénomène bizarre de populations retenues dans une complète infériorité religieuse, quand ces mêmes populations

1 Hist. Eccl. Franc. v. 15.

² Les malneureux portaient figées dans toutes les parties de leur corps des mèches allumées.

étaient déjà arrivées dans l'art, dans la littérature, dans la science, dans la politique, dans les théories d'organisation sociale, au plus haut degré de perfection. Les cultes ombriens et latins ne s'élevèrent jamais au dessus d'un formalisme grossier, qui ne laissait place entre l'homme et le dieu à aucun sentiment tendre. L'orphisme, les mystères furent en Grèce des tentatives, mais des tentatives insuffisantes pour donner un aliment à la dévotion, à la piété.

Le druidisme celtique ressemble davantage à ce qui furent en Orient les grandes réformes religieuses qui portent le nom de Moïse, de Zoroastre, de Bouddha; le druidisme ne suffit pas cependant, pour donner à la religion des Celtes une supériorité sur celle des autres peuples occidentaux. Quand, vers le milieu du 11^{me} siècle, le christianisme fit son apparition subite à Lyon et à Vienne, en pleine Gaule, chez les Ségusiaves et les Allobroges, il fut accueilli avec enthousiasme. Toutes les âmes élevées et sensibles se rattachèrent à lui. Le christianisme, se montrant tout à coup au milieu de cet abaissement religieux, fit l'effet que produit la civilisation auprès de la barbarie. Nos races, au fond excellentes, furent bientôt charmées; elles adoptèrent le christianisme de toutes les forces de leur âme; cette religion devint pour nos ancêtres en quelque sorte nationale, si bien que, plus tard, ils en vinrent à s'imaginer qu'elle était le fruit même de leurs entrailles, leur trésor, leur intime et personnelle création.

En s'imaginant cela, nos ancêtres ne se trompaient pas tout à fait. Oui, le christianisme est, en ses origines, un pur fruit de l'Orient, un rejeton du judaïsme, c'est-à-dire d'une religion purement sémitique. Mais l'Occident, en l'adoptant, le fit sien. Saint Bernard, saint François d'Assise, sainte Élisabeth de Thuringe, Jeanne d'Arc ont bien plus de rapport avec nos vieux ancêtres des forêts gauloises et germaines qu'avec David, Esther, ou les auteurs du Talmud. Nos saints bretons et irlandais, un saint Iltud, un saint Cadoc, un saint Colomban ressemblent plus à des draides qu'à saint Pierre ou à saint Paul. Les races européennes, en adoptant le christianisme, lui donnèrent leurs défauts et leurs qualités. Leurs qualités, c'était une rare profondeur de sentiment, un délirant amour de la nature, une imagination débordante, qui a teint de toutes les couleurs de l'arc-en-ciel, de tous les reflets de nos vertes fontaines, l'âpre sécheresse du messianisme palestinien. Leurs défauts, c'était la superstition. races celtiques et italistes furent peut-être les plus superstitieuses de toutes En devenant chrétiennes, elles ne cessèrent pas d'être superstitieuses. S'il y eut jamais une religion dégagée de toute scorie grossière, ce fut la religion de la première génération chrétienne. Transplantée chez des races polythéistes, cette religion, si pure en son principe, devint un vrai paganisme. Les chrétiens du temps de Grégoire de Tours eussent fait horreur à saint Paul. La célèbre lettre de saint Grégoire le Grand 3 érigea en principe les concessions qu'il convenait de faire à la barbarie.

"Quand vous serez arrivés auprès de notre frère Augustin, dites-lui, qu'après avoir longtemps examiné en moi même l'affaire des Anglais, j'ai pensé qu'il faut abattre non pas leurs temples, mais seulement les idoles qui y sont. Il faut faire de l'eau bénite, en arroser les sanctuaires païens, dresser des autels et y mettre des reliques; car, si ces temples sont bien bâtis, il faut les faire passer du culte des démons au service du vrai Dieu, afin que cette nation, voyant que l'on conserve les lieux auxquels on est accoutumée, y vienne plus volontiers. Et parce qu'ils ont accoutumé de tuer beaucoup de bœufs, en sacrifiant aux démons, il faut leur établir des solemuités à propos de la dédicace des églises ou des fêtes de martyrs. Ou'ils fassent des feuillées autour des temples changés en églises, et qu'ils célèbrent la fête par des repas modestes. Au lieu d'immoler des animaux au démon, qu'ils les tuent pour les manger en rendant grâces à Dieu, qui les rassasie, afin que, leur laissant quelques réjouissances sensibles, on puisse leur insinuer plus aisément les joies intérieures; car il est impossible d'ôter à des esprits durs toutes leurs coutumes à la fois. s'élève point en un lieu haut en sautant; on y monte pas à pas."

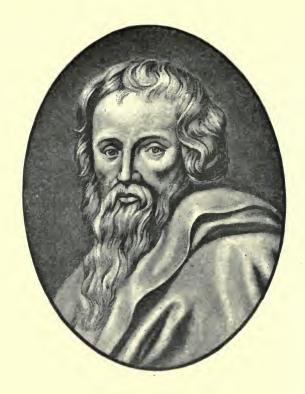
Quand on parcourt tel canton écarté de la Normandie et de la Bretagne, qu'on s'arrête à chacune de ces chapelles consacrées à un saint local, qu'on se fait rendre compte par les paysans des spécialités médicales de chacun de ces saints, celui-ci préservant les moutons du tournis, celui-là guérissant les ânes qui ont la patte cassée, tel autre sauvant les enfants du croup ou des vers intestinaux, on se rappelle ces innombrables dieux gaulois qui avaient des fonctions toutes semblables, et on arrive à croire que, dans les couches profondes du peuple, la religion a en somme peu changée. Mais, à un degré plus élevé, l'action bienfaisante du christianisme se révèle. Le christianisme, la Grèce et Rome, voilà les trois éléments qui, joints aux qualités de nos vieilles races celtiques et germaniques, ont été les facteurs de la civilisation européenne. Sans l'élément sémitique, introduit par le christianisme, quelque chose aurait manqué aux assises de notre culture intellectuelle et morale. Le paganisme n'aurait jamais réussi à instituer l'église, l'assemblée des fidèles, le dimanche, la cène, la prédication, les sacrements, la Bible. La Bible surtout, ce livre tout sémitique, devenu la lecture universelle de l'Occident, est le grand signe qui prouve le privilège religieux du peuple hébreu et l'arrêt providentiel qui condamnait notre vert et frais Occident à être en religion le vassal des enfants de Sem.

Le développement des sciences critiques et des sciences naturelles, en changeant les idées de tous les peuples cultivés sur le surnaturel, c'est-àdire sur la manière dont l'idéal fait son apparition dans les choses humaines, a modifié profondément l'essence même de la religion. Le païen, croyant à des forces multiples, qu'on peut prier et fléchir par des formules et des cérémonies rigoureusement pratiquées; le juif et le chrétien, croyant en un monarque unique de l'univers, réglant tout par des volontés par-

ticulières, par des décrets combinés en vue d'une fin, sont en égal désaccord avec une philosophie dont le premier principe est que Dieu est raison et, comme dit Malebranche, n'agit jamais par des volontés particulières. La religion dès lors s'est surtout réfugiée dans le cœur. Elle est devenue poésie et sentiment. Or, si le dogme divise, le sentiment réunit. Dieu nous garde de répudier ce beau nom de chrétien, qui nous met en rapport avec Jésus et l'idéal de l'Évangile, avec l'Église et tous les trésors de sainteté qu'elle a produits. Mais nous ne renions pas, non plus, notre passé naturaliste. Comme ce vieux roi de France, qui avait déjà un pied dans la cuve baptismale et qui l'en retira, quand le missionnaire lui dit qu'il ne trouverait pas en paradis ses nobles ancêtres les rois de Frise.4 nous ne voulons plus de damnation, d'anathèmes, de symboles exclusifs. En cela nous sommes vraiment disciples de Jésus. Jésus ne fut jamais plus divinement prophète qu'à Naplouse, quand il dit à la Samaritaine: Femme, crois-moi, le temps viendra où l'on n'adorera plus sur cette montagne ni à Jérusalem, mais où les vrais adorateurs adoreront en esprit et en vérité "

E. RENAN.

4 Acta SS. Ord. S. Bened, iii, 261.



ST. PAUL.

A.D. 2 OR 9-64.

THE APOSTLE OF CHRISTIANITY.

St. Paul, one of the founders of the Christian faith, known as the Apostle of the Gentiles, was born, according to the received accounts, at Tarsus, a Greek town in Asia Minor, in the early part of the first century of the Christian era. His family were Jews, belonging to the tribe of Benjamin.

Strabo declares that the schools of Tarsus equalled those of Athens and Alexandria. St. Paul obtained a knowledge of Greek literature in his native town, and then went to Jerusalem to study the law of Moses, under the Pharisee Gamaliel. He also learned the trade of a weaver, in conformity with the Jewish custom, which required that every male citizen should learn a trade, to gain his living, if required.

He had an ardent polemic disposition, and took an active part in the

attempts to put down the new sect called Christians-followers of Jesus -whose leaders, it was represented, had scandalized the synagogue by openly proclaiming that Jesus had come to do away with the old Jewish laws. Some of these reformers were stoned to death in the streets, their houses searched, and families-men and women-were dragged to prison to be whipped with rods. St. Paul was one of the foremost in these violent persecutions against the new faith. When a rumour spread that some of the worst offenders were actual members of the synagogue in Damascus, he obtained an order to go and arrest them, and started for the town, accompanied by Jews and soldiers. On the road an incident occurred, which completely changed the character of the man, and transformed him from a fanatical persecutor of this faith into its ardent supporter. This incident has been described in two ways; one supernatural, According to the first, the party found themselves the other natural. suddenly enveloped in a dazzling halo of light, and fell on their faces to protect their eyes. A voice demanded of St. Paul, why he persecuted the Christians, and, in response to his question, "Who are you?" answered, "Jesus."

According to the second, St. Paul, overcome by the heat and fatigue of the march, and the mental excitement his mission had brought upon him, fell senseless on the road, and was carried by his companions to Damascus, where he remained for several days blind, a prey to fever and delirium. A Christian named Ananias attended him during his illness. Paul felt remorse for the cruel treatment to which he had subjected the Christians, learned of Ananias enough of their principles to change his opinions completely, became a convert to the new faith, was baptized, and henceforth preached the Gospel of Christianity with a vigour and pertinacity that outstripped all his fellow-believers. This latter account probably grew out of the fact mentioned in Scripture, that no one but the Apostle heard words. He says himself, "They that were with me heard not the voice of Him that spake to me"—Acts xxii. 9. It is therefore held by some theologians that the miracle was subjective.

St. Paul claimed, by virtue of the voice on the road to Damascus, to have received a mission direct from Jesus to preach the faith. He did not acknowledge the superior authority of the other apostles, who, indeed, differed from him in one important respect; for, while they restricted their proselyting to their immediate friends and relations, or at all events to the Jews, St. Paul strove to convert the world—Jew and Gentile. A limited sect, which might have remained a feeble branch of Protestants against the Jewish faith, became in his hands a religion in itself, destined to rival, in the quality of its converts, if not in their number, the older religions of the East.

Paul was not a handsome man; his face was not pleasing, his figure was short and thick, and round-shouldered. Nor was he an eloquent

speaker; "his discourse rarely travelled beyond the repeated assertion that Jesus was the true Son of God, put to death by the priests;" but he had an inexhaustible fund of energy, though continually suffering from ill-health, and excited astonishment by his bold audacity in preaching a doctrine that might at any moment subject him to a violent death. A moral hero like this had never before been seen. He remained three years at Damascus, then returned to Jerusalem, where he had a narrow escape from his enemies, being let down in a basket from a window over-

looking the ramparts.

After preaching in various towns with little success, he went with Barnabas to Antioch, undertaking to found a Christian church there, as a rival to the one already established at Jerusalem. The latter required its members to be Jews, and obliged them to conform to the Jewish rites established by Mosaic law; but the new branch admitted all as converts, and dispensed with the rites. This liberality on the part of Paul was looked upon by the other apostles of the Christian Church as a grave scandal, and led to many unpleasant complications. They refused to sit at the same table, or associate with his converts. These dissensions are described with singular emphasis by himself in his Epistle to the Galatians. This letter, together with those to the Romans and the Corinthians, are undoubtedly the best authenticated documents relating to his life and the origin of the Christian Church.

Of the numerous voyages made by St. Paul and his companions to

propagate the Christian faith, we need give but a brief summary.

He made his "first circuit" in company with Barnabas and Mark, visiting Cyprus, Pamphylia, Pisidia, and Lycaonia. He made his second circuit with Silas, visiting Cilicia, Lycaonia, Pisidia, Phrygia, and Galatia. With Luke he carried the Gospel into Europe, preached at Philippi, Thessalonica, and Bercea, at Athens, Corinth, and Ephesus; appearing again in Jerusalem and at Antioch, when he rebuked Peter, the "apostle of the circumcision." Here he wrote a letter to the Galatians, and one to the Corinthians. Shortly after this he was mobbed at Ephesus. Escaping to Macedonia, he wrote again to the Corinthians, then visited them, and spent the winter there, writing the Epistle to the Romans. Sailed to Ephesus, Acre; returned to Jerusalem, where he was beset by the Jews: was rescued by Roman officers, tried, and sent a prisoner to Rome. Detained here for two years, he writes the Epistles to the Ephesians, Colossians, and Philippians. Released, he went to Spain, returning again to Jerusalem and Antioch. He then made his last circuit, Ephesus, Crete, Corinth; spent the winter at Epirus, then went to Dalmatia and Troas. At this time came the burning of Rome, persecution of the Christians; Paul was arrested and sent to the capital, where his mission came to an end. Whether he was put to death or died obscurely during some one of the voyages he is said to have undertaken after his first captivity, is not known with certainty. Tradition asserts that he died at Rome, a martyr to the faith; the fate of many other Christians during the last years of the reign of Nero. At his death the total number of Christians at the various centres is supposed to have been about one thousand; these primitive groups scarcely numbered more than a dozen members each, the meetings being held in private houses.

It must be remembered that the journeys of St. Paul and his companions were not made, like those of modern missionaries, at the expense of rich societies, but resembled the wanderings of journeymen mechanics, seeking employment from place to place. They lived by the labour of their hands—Paul wove tent-cloth—and they remained to work and preach wherever they could find employment. They travelled on foot, lived on little, were frequently ill-treated, sometimes imprisoned, and were fortunate indeed to escape with their lives. A book has been written upon the Acts of the Apostles; a volume might be written upon their sufferings, as revealed in the Epistles. We have enumerated the one; of the other a startling summary is presented by Farrar:—

"That life of his, as it stands revealed to me in his own Epistles, how s d it was, and how fruitful! From that day on which, blind and trembling, and with the scars of God's own thunder on his soul, he had staggered into the streets of Damascus, what a tragedy had encompassed him of ever-deepening gloom! That first peril, when he had been let down in a basket through a window - the flights from assassinationthe hot disputes at Antioch—the expulsion from Iconium—the stoning at Lystra—the quarrel with his own heart's brother—the acute spasms of that impalement by the stake in the flesh at Galatia—the agony in Macedonia, of outward fightings and inward fears—the five Jewish scourgings - the three Roman flagellations - the polished scorn of Athens - the factious violence of Corinth-the streaming tears of the parting at Miletus-the gnashing fury of Jewish mobs-the illegal insolence of provincial tribunals—these were but a fragment, and a small fragment, of his trials and miseries. Even the brute forces of Nature seemed to be against him-he had to struggle in her rushing water-courses, to faint in her sultry deserts, to toss for long days and nights in leaky vessels on her tempestuous seas. This was the perilous, persecuted life on which he had to look back as he sat chained to the rude legionary in that dreary Roman prison."

There are several representations of the Apostle upon medals and in ivory carvings, as well as numerous descriptions of his personal appearance, to which we have already referred. It remains to say a word concerning his character and historical position. It is certain that he had in him something of all three of the great civilizations of the ancient world; by birth he was a Jew and a Pharisee, yet he was born in a Greek city, a city claiming to rival Athens; but this Greek city was in a Roman

province, thus making him a Roman citizen. Thus he was by his origin well fitted to be the expounder of a cosmopolitan religion. "St. Peter was the Apostle of Catholicity, St. John was the Apostle of Love, St. Paul the Apostle of Progress." Each of these three chosen ones represented a special side of human nature—Will, Emotion, and Intellect. While Peter is the symbol of the Church militant, the rock on which the Church is built, St. John the beloved is the forerunner of that mystic love, that tender piety, ever and anon appearing in the course of its history, in the lives of St. Bonaventura, St. Francis, and the author of the Imitation. These are classed together on the one hand, while its more masculine minds, Augustine, Thomas Aquinas, Calvin, and Luther, stand on the other, and with them St. Paul.

The character which in our modern times he is found most to resemble is Luther. The one quality common to both, in a transcendent degree, is moral energy.

What is the great Apostle's place in history? He introduced Christianity to the civilization of Europe, becoming its chief champion to all mankind; he exalted the practice of Faith, Hope, and Charity—by these two acts creating a world-religion. Christ being God, St. Paul is His Apostle; one the spiritual head, the other the temporal founder. This is his title: The Temporal Founder of Christianity.

CHRONOLOGY.

A.D.	Age	A.D. Age
2 Birth.	0	&c. Epistles to Galatians
19 Placed under Gamaliel	17	and Corinthians; the riot at
37 Martyrdom of Stephen; conver-		Ephesus 55
sion of St. Paul	35	60-63 In prison at Rome. Enictles
10 Ministry at Antioch.	38	to Ephesians, Philippians,
First circuit—Cyprus, &c	44	Colossians 58-61
50 Hissecond circuit - Cilicia, Gala-		64 Release; last circuit 62
tia, &c	48	66 Second trial; martyrdom 61
7 Third circuit - Galatia, Corinth.		or second trial, marry dom Or



ST. AUGUSTINE.

A.D. 354-430.

THE CHRISTIAN THEOLOGY.

The "Doctor of Grace," as he has been termed, was born on the 13th of November, 354, at Tagaste in Numidia, of parents who belonged to a good family, though they were not very rich. His father Patricius was a Pagan, and of a hasty and choleric disposition, but the good example of St. Monica, his wife, at length taught him the meekness of the Christian religion, and he was baptized shortly before his death. The pious St. Monica endeavoured to instil the true faith into the mind of her son Augustine from his tenderest infancy, as, to use her own expression, she "considered herself only half a mother until she had communicated the life of grace to him who owed to her his natural life." Patricius, on the other hand, thought only of his son's advancement in the world.

Augustine was sent to be educated at Madaura, a neighbouring city,

where he studied grammar, poetry, and rhetoric. In his seventeenth year he proceeded to Carthage, where he easily held the foremost place in the school of rhetoric. Unhappily his morals now became corrupted. describes in his book of "Confessions" the frightful abyss of miseries into which he plunged. In that marvellous work he accuses himself of having begun to offend God at an age which is called, by an abuse of words, the age of innocence; he deplores the time he wasted in profane studies; and laments that the perusal of the writings of heathen poets so inflamed his imagination that he fell into the sin of impurity. The holy doctor none the less recognizes the advantages he derived from reading the poets. This study not only perfected his language, but it developed the faculties of his mind, particularly that of invention, which characterizes creative geniuses. It likewise communicated to him that richness and sublimity of thought and expression which exalt nature above itself; a facility in expressing ideas with elegance; and the power to employ, where necessary, bold passages and picturesque imagery.

About this period the death of his father threw him upon his own resources. To crown his misfortunes, the inquisitiveness and restless activity of his mind drew him into the sect of the Manichæans, in which he continued nearly nine years. Thus the corruption of his morals led to the loss of his faith. His virtuous mother, St. Monica, was not long in learning this, and the alarm which she felt at the first faults of her son, was redoubled by the prospect of the new danger he was incurring. She confided her sorrows to a pious bishop, whom she exhorted to undertake the conversion of Augustine. "It is not time yet," he replied; "let us be content to pray for him, and reassure yourself, for it is not possible that a son for whom so many tears have been shed should perish." This answer was regarded as an oracle of God. Fascinated, rather than convinced, the young proselyte was far from finding in the doctrine of Manichæism the repose for which he so ardently longed; and when finally he escaped from the idle dreams of this sect he embraced the errors of the Academicians, which led him to doubt everything.

In 383 he went to Rome, and after a short stay there proceeded to Milan, where he became a teacher of rhetoric. This event, fortuitous in appearance, was anything but an indifferent one in the designs of Providence. The Bishop of Milan was St. Ambrose, who received the new professor with a kindness which began to remove many of his prejudices. Augustine frequently attended the sermons of St. Ambrose, but the more he was forced to render homage to the prelate's eloquence the more he placed himself on his guard against persuasion, shutting his eyes to the light which ever pursued him. One day, being a prey to the most violent agitations, his face streaming with tears which flowed involuntarily from his eyes, he had fled the company of some faithful friends in order to seek, in a grove in his garden, the solitude and the calm which his heart

craved for. Throwing himself on the ground he invoked the assistance of Heaven, when on a sudden he heard, as it were, the voice of a child which, singing, frequently repeated these two words in Latin, "Tolle, lege; tolle, lege" ("Take up and read"). Interpreting the voice to be a Divine admonition, he returned in haste to the place where he had left the book of St. Paul's Epistles. He opened the volume, and read in silence the following words on which his eyes first rested: "Not in revelling and drunkenness; not in chamberings and impurities; not in strifes and envy; but put ye on the Lord Jesus Christ, and make not provision for the flesh in its concupiscences." Scarcely had he finished the perusal of this passage when a ray of light came to illuminate his understanding, to dispel the darkness of his former hesitation, and to inflame his heart with a celestial ardour. This conversion of St. Augustine, which was no less striking than that of St. Paul himself, happened in the year 386. The good news was immediately conveyed to St. Monica, who was transported with joy. In the following year Augustine and his natural son Adeodatus were baptized at Milan by St. Ambrose.

Augustine now renounced his profession of rhetorician and returned to his native place. On his arrival there he distributed his possessions among the poor, and lived in a community with some of his friends. The religious Order of the Hermits of St. Augustine dates its foundation from this epoch in 388. Going afterwards to Hippo he was ordained priest by Valerius, Bishop of that place (391). In 395 he became coadjutor of Valerius, and in the following year succeeded him in the bishopric of Hippo. He now lived in community with the clergy and performed all the duties of the episcopal office. This is the origin of the Regular Canons of St. Augustine—a distinct Order from that of his Hermits. St. Augustine also instituted a nunnery of his Order, and his sister became its first abbess.

He died at Hippo on the 28th of August, 430, when that city was threatened by the Vandals.

Of his great labours, his disputes with Manichæans, Arians, followers of Priscillian, Origen, and Tertullian, the Donatists and Pelagians—allowing no doubtful utterance of doctrine to pass without question—his vast correspondence with emperors, nobles, doctors, missionaries, and bishops, in every quarter of the globe, on questions of dogma, discipline, and policy; his solid words of commentary, criticism, morality, philosophy, theology, and poetry, the list of which forms a whole catalogue; it is needful here to note only the most important.

The heresies that he chiefly controverted were: that of the Manicheans, who held that the evil spirit resided in matter, and hence that the human body was evil; the Donatists, whose tendencies were theoretic, and who were inclined to rebel against civil government;

and the Pelagians, who denied that the sin of Adam affected his descendants, holding that each man is born innocent, and becomes

responsible only for his own acts.

His two principal books are the never-to-be-forgotten "Confessions," and that noble work, his master-piece, "The City of God." The former of these belongs to the domain of autobiography, a favourite book in all ages; the latter to that of the philosophy of history; in it he maintains that the existing material world, the great pagan empire, the city of Rome, is corrupt and ruined, and about to disappear; but there exists with it, side by side, the new spiritual world, the Christian empire, the city of God, which is in Heaven and eternal.

"Of these twelve books," says the Author, in an introduction, "the first four contain an account of the origin of these two cities—the city of God and the city of the world; the second four treat of their history or progress; and the third and last four of their deserved

destinies."

The Roman Catholic Church owes its outward foundation to four Latin Fathers: Jerome established its monasteries, Gregory its missions, Ambrose its ceremonial; Augustine, the greatest of all, established its theology.

Still, when all is said, it is by the "Confessiones" that he is best known. The singular simplicity and naïveté of their avowals, coupled with a strange earnestness and the rapt devotion exhaled by every line, stamp the book as unique, not only in the history of the Church, but in the history of literature.

CHRONOLOGY.

A.D. Age	Age Age
B51 Born at Tagaste.	389-91 Passes his time in seclusion 35-37
371 Studies at Carthage 17	391 Ordained priest
373 Embraces Manichæism 19	
379 Teaches rhetoric at Carthage . 25	397 "Confessiones"
383 Renounces Manichæism for	404 "Contra Felicem Manichæum" 50
Academics 29	
384 Removes to Milan 30	
386 "De Vita Beata" 32	
B87 Baptized by St. Ambrose;	Coll. contra Donatistas " 57-74
mother dies; "De Acade-	
micis"	
388 Returns to Africa 34	



ST. BERNARD.

A.D. 1091-1153.

MONASTIC LIFE.

This famous saint was born at the castle of Fontaine, near Dijon, in Burgundy, in 1091. His father, a knight named Tescelin, was descended from the Counts of Châtillon, and his mother, Aleth or Elizabeth, was daughter of the Count de Montbard. He was educated at Châtillon, where he astonished his masters by the rapidity of his progress. When he was fourteen years old he lost his mother, and at the age of twenty-two he resolved to embrace the severe Cistercian institute. Neither the prayers of his friends nor the remonstrances of his relatives could triumph over his determination to seclude himself in the cloister. It was perilous, indeed, to try to divert him from his vocation, for those who gave him an opportunity to justify himself ran the risk of being converted to his views. Many of those who sought to retain him in the world followed

him to the monastery of Citeaux, which had then been founded fifteen years, and was governed by St. Stephen. His five brothers, his uncle Gaudry, and more than twenty other proselytes there pronounced with him the solemn vows in 1114. Already his stirring eloquence induced sons to leave their fathers and husbands their wives; and families were broken up in order that monasteries might be peopled.

Two abbeys, offshoots of Citeaux, were founded at this period: La Ferté in 1113, and Pontigny in 1114. Bernard was charged with the foundation of a new house in the diocese of Langres in Champagne. Accordingly he and twelve other monks settled in a desert called the Valley of Wormwood, where they erected with their own hands the first cells that sheltered the humble community, of which Bernard, scarcely twenty-four years of age, became the first abbot. By their unceasing toil the fraternity so improved the appearance of the locality that it was called Clairvaux, or "Beautiful Valley." A daughter of Citeaux, the abbey of Clairvaux, became in its turn the mother of several communities, such as Fontenay and Trois-Fontaines, both of which were founded by St. Bernard.

From the year 1128 he took part in important public affairs which had no connection with the administration of his abbey. Notwithstanding his love of retirement, yet obedience and zeal for the Divine honour frequently drew him from his beloved cell; and so great was the reputation of his learning and piety that all potentates desired to have their differences determined by him. Bishops regarded his decisions as oracles or indispensable laws, and referred to him the most important affairs of their churches. The Popes looked upon his advice as the greatest support of the Holy See, and all people had a very profound respect and an extraordinary veneration for his person and sanctity. It may be said of him that even in his solitude he governed all the churches of the West. The remarkable conversions of great princes and prelates wrought by St. Bernard were very numerous.

He warmly espoused the cause of Innocent II., whose claim to the Chair of St. Peter was contested by Anacletus. After persuading the kings of France and England to support Innocent, he accompanied that Pontiff to Italy. Finally, in 1138, the schism was healed, and Innocent was acknowledged as legitimate Pope by the whole Church. St. Bernard was now able to see the fruit of his eight years of toil and contest. He returned modestly to France, and re-entered his cloister with the same simplicity with which he had quitted it.

In 1140 he was present at the Council of Sens, where he demanded the condemnation of Peter Abelard. He has been reproached for his zeal on this occasion; but a proof that he was not actuated by personal animosity is to be found in the fact that he became cordially reconciled with Abelard as soon as the latter had abjured his erroneous opinions.

We now come to the most important event in the life of St. Bernard. He was entrusted by Eugenius III., formerly one of his monks, who had been elected Pope, with the task of preaching the second Crusade. commission he executed with almost incredible success in all the chief provinces of France, and afterwards in the principal cities of Germany. Multitudes of all classes flocked to listen to his words. Pale and attenuated to a degree which seemed almost supernatural, his contemporaries discovered in the mere glance of his eyes something which filled them with wonder and awe. That he was kept alive at all appeared to them a perpetual miracle; but when the light from that thin calm face fell upon them, when the voice flew from those firm lips, and words of love, aspiration, and sublime self-sacrifice reached their ears, they were no longer masters of themselves or their feelings. So thoroughly did he arouse men's minds that, to use his own expression, the towns and castles were changed into deserts, and everywhere widows were to be seen, "whose husbands were not yet dead." He adds that scarcely one man was left to seven women. The failure of this unfortunate Crusade raised a great storm against St. Bernard, because he had seemed to promise success. His answer was that he confided in God's mercy for a blessing on an enterprise undertaken for the honour of Ilis divine name; but that the sins of the army were the cause of their misfortunes.

Having retired to the abbey of Clairvaux, he spent the remainder of his days in the study of the Holy Scriptures, and in the practice of the most vigorous penance. His body, already enfeebled by his apostolical labours, succumbed to these ascetical austerities. He died on the 20th of April, 1153.

His name was solemnly enrolled among the Saints by Pope Alexander III. in 1165.

The monastery of Clairvaux, a most stately and spucious structure in the eighteenth century, was in its founder's time a low and mean building; yet St. Bernard left in it at his death seven hundred monks. He founded before his death one hundred and sixty other monasteries; and their number was so much increased after his death that, before the dissolution of religious houses in Great Britain and the northern kingdoms, eight hundred abbeys were subject to Clairvaux, being filiations of that house.

St. Bernard is reckoned among the Fathers of the Church on account of the great excellence of his works, which are exceedingly numerous, and consist of epistles, sermons, and theological treatises. They are all instinct with genius.

Since the birth of Christianity each succeeding age has produced its own peculiar type of "saintly workers." In the beginning, the primitive age, appeared the Apostles, of which the chief was St. Paul. Then came, at the fall of Rome, the Fathers, greatest of whom was St. Augustine.

Later on, in the dark ages, upon the foundations of Jerome and Benedict, there rose the Monks, the noblest of whom was St. Bernard. Still later, in the proud pageant of chivalry, there entered the meek and lowly Friars, led by Francis of Assisi. Finally, amid the bursting splendours of the Renaissance of art and learning, came the Reformers—Luther for the North; Loyola for the South.

Each period has its type. Bernard, the Monk, standing at the close of the dark ages, reaches his left hand to the Church Fathers and Apostles behind, and his right to the Friar and the Reformer that are to follow. Thus he links the old world of Antiquity to the new world of Modern Times.

"The key-note," says Farrar, "of that immortal rule to which is due a very large part of the vast services rendered to the world by true and uncorrupted monasticism, is self-almegation. Antony has shown the foundation of individual freedom in self-conquest. Benedict showed the foundation of social freedom in self-surrender. Poverty, chastity, and obedience, were the vows of the Monk; humility and silence his rules; his three occupations were reading, prayer, and work. It was the Monks who kept alive the flickering light of civilization, while Europe was passing through her long night, and the crowning example is Bernard—St. Bernard of Clairvaux—rebuking princes, upholding Popes, firing all Europe to a new Crusade, living in utter poverty, daily asking himself the stern question, 'Bernard, wherefore art thou?'—these are but stray gleams from a life of steady radiance."



ST. FRANCIS OF ASSISI.

л. D. 1182-1226.

FOUNDER OF THE ORDER OF FRIARS MINORS.

St. Francis of Assisi is one of the most venerated saints of the Roman Church, and one of the most glorious figures in the band of illustrious men which medieval Catholicism has bequeathed to the admiration of the world.

Towards the end of the twelfth century, in the year 1182, Francis Bernadone, the son of Pietro Bernadone, a wealthy merchant, and Madonna Pica, his wife, was born in Umbria, at the little town of Assis, which has since become illustrious through his name and memory. Pietro was in France when his son was born, and the mother, in his absence, called the boy Giovanni, but when the merchant returned he changed the name to Francesco, for love, it is said, of the land he had just quitted.

Being destined for a commercial life, Francis received a fair amount of

education, and early acquired a knowledge of the French or Provençal language, of which he was always extremely fond. As a youth he was fond of society and fine clothes, of merry entertainments, of music and song, and of pleasure generally. The inhabitants of Assisi called him the "Flower of Youth."

The first epoch of his life lasted till he was twenty-five years old. was then taken prisoner in an attack on Perugia, where he remained in captivity for a twelvemonth; and an illness he there contracted having diverted his thoughts from earthly things, he resolved to become a soldier of Christ. In his zeal to rebuild the church of St. Damian, he resolved to devote to this purpose the proceeds of the sale of some property belonging to his father. Bernadone was so incensed that he beat Francis unmercifully, put fetters on his feet, and locked him in a chamber, from which, however, his mother released him. The angry father next summoned his son to appear before the bishop, who directed that the money should be restored. "Not only the money," cried Francis, with indignation, "but everything that can be called his-even the clothes he has given me—I will restore." And throwing off his garments he piled them in a heap before the astonished assembly, placing the money on the top of all. "Bear witness, all present," he exclaimed, "up to this time I have called Pietro Bernadone father, but now I am the servant of God. I have restored to him the money which he sought with so much fury. and even the clothes I have had from him; and henceforth I will say only, 'My Father who art in heaven'-no more my father Pietro Bernadone." The bishop tenderly threw over the young man the episcopal mantle, and ordered some garment to be brought in for him. of a poor labourer was found. This first alms Francis received with gratitude. The remarkable event just described, which is termed his "conversion," happened in the year 1206.

Thenceforward Francis devoted himself exclusively to works of piety and charity. He begged in the streets for money to repair the church of St. Damian, and assisted the masons by carrying the stones with his own hands. He frequented the hospitals, washing the feet and kissing the ulcers of the lepers. His excessive humility in dress and demeanour began after a time to win sympathy for him. Bernardo di Quintavalle, a rich merchant, sold all his estate, distributed it among the poor, and came to pray with Francis. To him was soon joined Pietro di Catanio, a canon of the cathedral of Assisi. These brethren received the dress of Francis, consisting of a coarse robe of serge, girded with a cord, on the 16th of August, 1209, from which day the foundation of the Franciscan Order properly dates. The name chosen by Francis for the members of his community was that of "Friars Minors"—Lesser Brothers, the poorest and humblest of God's servants. Practising the structest poverty, he would not allow any temporal property to be vested in the Order.

At the beginning Francis and his companions occupied a little cottage just outside the wall of the city of Assisi, but when their number increased they retired to a little church called Portiuncula, belonging to the Benedictine monks of Subiaco, who gave it that name because it was built on a small estate or parcel of land which belonged to them. stands in the open plain, about a mile from Assisi. The Order increased so rapidly that the second General Chapter, held in 1219, was attended by 5000 friars. Pope Innocent III. verbally approved the Order in 1210; a like approbation was given to it in 1215 by the Fourth Lateran Council; and Pope Honorius III. confirmed the Rule by a bull dated the 29th of November, 1223. In 1212 Francis gave his habit to St. Clare, who, under his direction, founded the institute of holy virgins, which was called the Second Order of St. Francis. The nuns of this Order are now called "Poor Clares." The Third Order of St. Francis was instituted by him in 1221, for persons of both sexes, married or single, living in the world, and united by certain rules and exercises of piety compatible with a secular state. St. Francis undertook various missions to spread the knowledge of the Catholic faith. Desiring to win the crown of martyrdom, he went to Pulestine in 1219, and passed into the camp of the Saracens. He was captured and taken before the Sultan, whom he earnestly exhorted to embrace the Christian religion. The Sultan granted certain privileges to the Franciscan Order, and permitted its founder to return to Italy.

Two years before his death Francis was praying on Monte Alverno, when there appeared before him a scraph, having between his wings the figure of a man crucified, with his hands and feet stretched out, and fastened to a cross. From this period, it is said, Francis bore in his flesh the "stigmata" or marks of the sacred wounds, and was more inflamed than ever with the scraphic ardour of divine charity. Owing to this circumstance, he received the designation of "scraphic," which has been continued to his Order.

This great saint was only a deacon, his humility having prevented him from being ordained priest.

He died near Assisi, on the 4th of October, 1226, and two years afterwards he was canonized under the auspices of Gregory IX.

The personal appearance of St. Francis is thus described by his friend Thomas de Celano: "He was of middle stature, rather under than over; with an oval face, and full but low forehead; his eyes dark and clear, his hair thick, his eyebrows straight; a straight and delicate nose, a voice soft, yet keen and fiery; close, equal, and white teeth; lips modest, yet subtle; a black beard not thickly grown; a thin neck, square shoulders, short arms, small hands and feet, delicate skin, and little flesh; roughly clothed; sleeping little; his hand ever open in charity."

The Franciscan Order has produced several popes and a great number

of cardinals, bishops, and other persons eminent for learning and virtue. There have been several "reforms" of this famous Order, which has always maintained its popularity in the Roman Catholic Church. The Observantists, the Capuchins, the Recollets, and the Discalced Franciscans are branches of the great tree planted by St. Francis of Assisi.

Ruskin, in his "Mornings in Florence," speaks incidentally of the Reformer as follows: "Christianity went on doing her best, in Etruria and elsewhere, for four hundred years, -and her best seemed to have come to very little, -when there rose up two men who vowed to God it should come to more. And they made it come to more, forthwith; of which the immediate sign in Florence was that she resolved to have a fine new cross-shaped cathedral instead of her quaint old little octagon one; and a tower beside it that should beat Babel. The two men who were the effectual builders of these were the two great religious Powers and Reformers of the thirteenth century; St. Francis, who taught Christian men how they should behave; and St. Dominic, who taught Christian men what they should think. In brief, one the Apostle of Works, the other of Faith. Each sent his little company of disciples to teach and preach in Florence; St. Francis in 1212; St. Dominic in 1220. when they had got Florence, as it were, heated through, she burst out into Christian poetry and architecture, of which you have heard much talk-burst into bloom of Arnolfo, Giotto, Dante, Orcagna. Now the gospel of Works, according to St. Francis, lay in three things: You mustwork without money, and be poor; you must work without pleasure, and be chaste; you must work according to others, and be obedient."



ERASMUS.

A.D. 1466 1536.

REVIVAL OF LEARNING-THE GREEK TESTAMENT.

There are few men of equal historical importance with Erasmus, whose position has been the occasion of so much controversy. To this day he is ranked by some writers as one of the "Reformers;" that is, as one of the group of men with Luther at their head who, by their teaching and course of action, brought about the separation of great part of Europe from the Papacy, and set up a new dogmatic system in rivalry with that of Rome. The facts, however, are that Erasmus remained in communion with the Church to the day of his death, that he disapproved and opposed the heroic method of Luther, that his beliefs and aims were different from Luther's, and that, while doctrinal reform was a main object with Luther, Erasmus was indifferent about it, and expressly submitted his own judgment to that of the Church.

Erasmus, reputed the greatest scholar and wit of his age, was one of the most powerful instruments of "the new learning." He never pre tended to be a Christian evangelist. He desired a Christian reformation, but it was chiefly a reformation of manners; and this he hoped would be brought about by forces within the Church, by the gradual spread of culture, not by schism and dogmatic revolution. He never leaned to the neo-paganism of the Italian Renaissance. Indeed, his "Ciceronianus" was a covert attack upon the neo pagans whom he dared not assail openly. By his labours as a scholar he prepared the way for the Reformation, from which he held himself aloof; and by his printed Greek Testament he furnished the Reformers with their most potent weapons.

He was born at Rotterdam on the 28th of October, about the year 1466. From the first "misfortune marked him for her own." He was a love-child; and, as his parents were never married, more by others' faults than by their own, he bore the brand of bastardy. His father's name, Gerhard, "the beloved," he translated into Latin "Desiderius," and into Greek "Erasmus." He was tenderly cared for by his pirents; but at fourteen lost them both. His guardians proved unfaithful and virtually compelled him to enter a monustery; but the austerities of the monastic life were repulsive to his comfort loving nature, and, quitting his cell, he became private secretary to the Archbishop of Cambray. Soon afterwards he took priest's orders. Next he went to study at Paris, where he had the while to earn his living by teaching. Eager to learn Greek, and without the means of going to Italy, he came to England (1497 or 1498) to study at Oxford, where Greek was taught by scholars who had lately been in Italy. Here he became the warm friend of Colet and More. Colet was not only a lover of the new learning, but a fervent Christian, longing for reformation of the Church, and Erasmus was powerfully impressed by his views and aspirations.

Early in 1500 he left England for Italy, but his money was seized at Dover custom-house, and he had to stay in France. About this time he published his "Adagia," which from small beginnings grew into a large collection of extracts, with witty and learned commentaries. In 1501 appeared his "Enchiridion Militis Christiani," a tract for the times, setting forth the real nature of the Christian religion. It was translated into French, Spanish, and German, and into English by Tyndale. The book was condemned by the Sorbonne, and burnt by order of the

Parliament of Paris.

Revisiting England in January, 1506, Erasmus was introduced to Archbishop Warham and Bishop Fisher, and found in them faithful friends. In the summer he set out for Italy. During his three years' stay he visited the principal cities, studied Greek, took a doctor's degree, and obtained a dispensation from his monastic vows. On the accession of

Henry VIII. he was recalled to England, and was appointed Professor of Divinity and afterwards Professor of Greek at Cambridge. At More's house he wrote the work which he had planned during his rides on horseback across the Continent. This was the famous "Praise of Folly." entitled, with playful reference to the name of his host, "Encomium Moriæ." Brimful of wit and sarcasm, it assailed the follies of the age, condemned war and field-sports, and especially covered with disastrous ridicule the proud and ignorant scholastic doctors and the cowled monkish impostors. Printed in 1511, within a few months it passed through seven editions. Twenty-seven editions appeared in the lifetime of the author. During this period Erasmus was always in want of money, and used to beg till he was ashamed of it. He left England in 1514 on being appointed member of the Council of the Netherlands, with a sufficient pension. He went first to Basel to get his edition of St. Jerome and his Greek New Testament (at both of which he had been working hard for years) printed by Froben. They were published in 1516. To this Greek Testament, the first published, Leo X. gave his sanction by accepting the dedication. It was accompanied by a new Latin version, and by an earnest "Paraklesis," in which Erasmus set forth his object in publishing it. This work marks an epoch as the beginning of modern Biblical criticism. The edition of St. Jerome was put forth with the same object-the restoration of "the old and true theology." In the same year appeared the "Institutio Principis Christiani," the main lesson of which was that the good of the people ought to be the chief object of a Christian ruler. It was written at the same time as More's "Utopia." During the next seven years Erasmus published his "Paraphrases of the New Testament," of which an English translation, by Nicholas Udal, was ordered to be placed in every parish church. In 1518-19, Erasmus published a revised edition of his Greek Testament, with a reply to objections and a discourse on the method of study.

About this time some friendly correspondence took place between Erasmus and Luther and Melanethon. A little later occurred the bitter quarrel with Ulrich von Hutten, to whom Erasmus, from politic motives, refused an interview. He was at this time writing his "Familiar Colloquies," a first edition of which was published without his sanction in 1518. The work was extended in successive issues, and had a very large circulation. Whispers of heresy were heard and the book was condemned by the Sorbonne and prohibited by the Inquisition. The relations between Luther and Erasmus, at first friendly and courteous, gradually changed into open and bitter hostility; and Erasmus wrote against Luther's doctrine of the will. Luther's fancy that Erasmus led a life of learned repose without trials or difficulties was strangely at variance with facts. Early left an orphan, robbed of his small patrimony, forced into a monastery, virtually a pauper, practically without kindred,

and long without a home, a sufferer from the stone for more than twenty years, so that he had to work standing—this was not a life of enviable repose. His persistence in literary labour through all these cruel circumstances was hardly less than heroic.

As literary adviser to Froben, Erasmus edited and translated several of the Fathers and classical authors. He retained his faculties, his industry, his calmness, and his sportive spirit to the last. In the last year of his life the news reached him of the execution of his friends Fisher and More. He was ill at the time, and a few months later died at Basel, after very great suffering, on the 12th of July, 1536. His remains were interred in the cathedral.

CHRONOLOGY.

A.D.	A	lge.	A.D.	Age
1467	Born at Rotterdam.		1510 Visits England; made Pro-	
1486	Enters Augustine Order at		fessor at Cambridge; "En-	
	Stein	19	comium Moriæ"	43
1492	Takes priest's orders	25	1514 Councillor, Brabant	47
1496	Studies at Paris	29	1516 At Basel; New Testament	
1497	Visits England	30	in Greek and Latin	
1498	"Adagia"	31	1521 Settles at Basel	54
1503	"Enchiridion Militis Chris-		1522 "Colloquia"	55
	tiani "	36	1529 -35 Resides at Friburg 62	-68
1506	Degree of D.D. at Bologna		1536 Dies at Basel	69
	and Turin	39		



MARTIN LUTHER.

A.D. 1483-1546.

THE REFORMATION-PROTESTANTISM.

In the Reformation of the sixteenth century, the greatest religious revolution which Christendom had seen, the foremost champion was Martin Luther. In earlier ages many a voice had been raised against the errors and corruptions of the Church; but these voices had one after another been silenced, and dark places had been lit up by the fires in which martyrs perished. With the revival of learning, the invention of printing, and the discovery of the "new world," vast changes had come upon the face of Europe. In the general stir of men's minds, and with the growth of the spirit of free inquiry, religious discussions must needs arise; and the scandal caused by the bad lives of some of the popes, as well as by other abuses, had prepared men to take part in the revolt of the intellect and the conscience, when once the standard was set up.

Luther was born at Eisleben in Saxony, on St. Hartin's Eve, 1483. His parents were God-fearing folk of the peasant class; and, soon after his birth, they removed to Mansfield for the sake of employment in the mines. Martin was early sent to school, and his real education was secured by strict discipline, pious teaching, and upright examples at home. At fourteen he was sent to Magdeburg, thence to Eisenach, to study; and he used with other boys to sing and beg from door to door for bread. In 1501 he went to the University of Erfurt to study, first philosophy, and then law.

But there was in him a spiritual unrest and melancholy which none of his studies could appease. He fell ill, and in his sickness was comforted by an old priest, whose gracious words he never forgot. The course of his life was changed by the sudden death of a friend, who was struck down at his feet in a thunderstorm. "What, then, is this earthly life, what are all its possible honours and successes?" He would live henceforth for God. He now quitted the university and entered the Augustine convent. His novitiate was full of severe trials; but all his "exercises" and his studies left his deepest want and misery untouched. At length light arose. He found in the library a Latin Bible, and in its pages the truth he wanted:—"Ye are saved by grace through faith." "The just shall live by faith." With the truth and the grace came the peace of God, the clouds drifted away from his soul, and there was a great calm.

He was now employed by his Order on various missions, and when the University of Wittenberg was founded he was made professor of philosophy (1508). In his lectures, which drew a crowd of listeners, he spoke with a novel boldness of the scholastic system, and appealed to the authority of reason and Scripture. Invited by the Senate, he took, after much hesitation, the office of preacher. His discourses, rich in neglected truth vivified by his own experience, produced a powerful impression, and led one learned doctor to predict that this monk would confound all the doctors and reform the Church.

In 1510 he was sent to Rome on some business of his Order. The city was to him an object of profound veneration, and when he first beheld it he prostrated himself in the dust, exclaiming, "God save thee, Rome, thou seat of the Holy One!" Nor did all that he saw there of the unholy and horrible suffice at once to disenchant him. It was some years before the real lesson of this visit was fully learnt. After his return he was made doctor of theology (1512).

Year by year the influence of Luther was spreading, and in 1517 a collision with the Church took place. The pope, Leo X., wanting money, resolved to get it by means of indulgences. One Tetzel, a Dominican monk, was sent to preach them in Saxony. The matter thus forced itself upon Luther's attention, and as an honest and brave man he could

not hold his peace. He appealed to several bishops, preached against indulgences, and ultimately posted on the church of the castle ninety-five "theses" on the subject, and challenged a disputation. Within a month Luther's words were read with eager interest all over Christendom. Thus the stormy battle began which was to rage so long and leave results which were hardly dreamed of. Even the Pope thought the affair was a mere quarrel of monks.

A series of disputations followed, with a host of printed books, letters, and papal bulls, all the world listening and looking on. Luther appealed to a general council. In June, 1520, he was condemned by a papal bull, his writings were ordered to be burnt as heretical, and himself to recant or to be sent bound to Rome. He again appealed to a council; and in December gave his answer to the Pope by burning the bull amidst the shouts of the people. In January, 1521, he was excommunicated for having denied the supremacy of the Pope. But these thunders, like spent shot, rolled feebly through the air, and could not now terrify and paralyze men as once they did.

Three months later was held the Diet of Worms, the first at which the young Emperor Charles V. was to preside. Luther was summoned and a safe-conduct was granted him. Many friends tried to dissuade him from going, but in vain. "Were there as many devils in Worms as there are tiles on the houses, I would go." It was a great moment. Such issues for the human race were hanging upon it. Confronting the two chief powers of Christendom, the empire and the papacy, with their splendours and their terrors, stood this private man, his only strength a conviction of Divine truth. He rose to the height of the occasion, and "spoke as if deputed by mankind," closing his speech with the never-to-be-forgotten words, "It is neither safe nor prudent to do aught against conscience. Here I stand. I can do no otherwise. So help me God. Amen."

From this memorable day Luther's life was prolonged through twenty-five busy and troublous years. After the Diet he spent nearly a year in the castle of the Wartburg; and here he began his translation of the Bible into German, which was not finished till 1534. In 1524 he cast off the profession of a monk, and in the following year he married. In 1530 dogmatic form was given to the views of the Reformers in the "Confession of Augsburg." Thus the movement which owed its origin to free inquiry terminated in the erection of a barrier to further inquiry; and the dogmatic system of the papacy was now confronted with a rival system, which in its turn would have to be assailed by the forces of advancing thought and knowledge.

The last few years of Luther's life were passed in comparative quiet. His influence was propagated in many lands by the students who flocked to Wittenberg to hear him. His Bible was perhaps his greatest

gift to his countrymen. Its language became the language of German literature. His written works still charm readers by their sterling sense, vigour, and truthfulness. The book of his "Table-Talk" reveals the private life, the playfulness, and warm affections of the man. At sixty-three, and in broken health, he went as mediator to his native place, Eisleben. But he fell ill; all tender ministrations were of no avail, and on the 18th of February, 1546, he died.

Just two months before Luther's death the Council of Trent was opened, at which the forces of the reaction were to have their way, and modern Romanism was to be founded. The Reformation was to be

completed by the Counter-reformation.

It is said by comparative theologians that every religion in its history passes through three phases. The first is the inspired phase; this is the age of its original revelation, the age of its prophets and apostles—such men as Moses and St. Paul. The second is the liturgical phase; this is the age of its rites and ceremonies, and priesthood—offering examples like Augustine, Bernard, and Bossuet. The third phase is reactionary; the age of its decay and reformation. It now shows forth a class of men who seem to revive in a degree the spirit of the original founders—who bring to it new life and new inspiration—Savonarola, Luther, Calvin, Loyola, Knox, Fox, and Wesley. If we were to apply this law to the life of Christianity, and try to select one representative man for each of its phases, we should probably decide upon St. Paul, Bossuet, and Luther.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1483	Born at Eisleben.		1520 Leo X. issues butt against him	37
1501	Studies at Erfurt	18	1521 Excommunicated by Leo X.;	
1503	Degree of M.A	20	made prisoner in the Wart-	
1505	Enters Augustine monastery	22	burg; begins version of the	
1507	Ordained priest	24	Bible there	38
	Professor of Philosophy at		1522 Returns to Wittenberg	39
	Wittenberg	25	1524 Sent to Jena; casts off monk's	
1510	Visits Rome	27	dress	41
	Degree of D.D	29	1525 Introduces reformed worship	
	Preaches at City Church,		at Wittenberg; mairies;	
	Wittenberg	33	"De Servo Arbitrio"	42
1517	Publishes Theses on Indul-		1529 Conference with Zwingli and	
	gences	34	Œcolampadius	46
1518	Controversy with Dr. Eck;		1530 Diet of Augsburg; resides at	
	meets Cardinal Cajetan at		Coburg	47
	Augsburg; appeals to		1546 Receives deputation from	
	general council	35	Elector of Brandenburg;	
1519	Conference with Miltitz at Al-		visits Eisleben; is recon-	
	tenburg; corresponds with		ciled with Count Mansfield;	
	Erasmus	36	dies at Eisleben	63



CALVIN.

A.D. 1509-1564.

THE REFORMED CHURCH-PURITANISM.

IF a man's greatness may be tested and measured by the size and the permanence of the shadow which he leaves on the face of the world, then it must be admitted that John Calvin was great, and even exceptionally great. For although his part as practical reformer was acted on a very narrow stage, his power as thinker and writer, organizer and systematizer, extended over the broad field of Europe. To found and preside over the Genevese theocracy for nearly thirty years was in itself an achievement which would have formed, like that of Savonarola at Florence, a deeply interesting episode in Church history, full of instruction, warning, and discouragement. But this was the smallest part of Calvin's work. His real place in the great Reformation was foreshadowed in Melanchthon's designation of him as "The Theologian." Trained in the same school of

Christian thought as Wycliffe and Luther, the system elaborated in the fifth century by St. Augustine, which had dominated the medieval church, Calvin took up the scattered beliefs and thoughts of the new Evangelical party, and in the loom of his strong logical and legal intellect wove them into a new system, and "theory of the universe." This system, embodied in his famous "Institutio Christianæ Religionis," at once found a home in the minds and hearts of men; and Calvin's "Credo" was echoed and re-echoed from the lips of many churches and generations. Thus was he one of the conquering thinkers, who "lay on men the grasp of despotic genius, and chain an age to their thought and emotion." What a triumph he has had! Within the Reformation he founded a new reform, an imperium in imperio, and Calvinism became one of the living forces of the world. Followers in the train of this Genevese thinker were brave and suffering French Huguenots, fearless John Knox with his Scottish Covenanters, English Cromwell and the Puritans, and last, not least, the "Pilgrim Fathers" and the New England which they founded beyond the Atlantic. Surely an august following! But the world is changing. All things are for a time only.

> Our little systems have their day, They have their day and cease to be.

Calvin was the son of a notary, secretary to a bishop, and was born at Novon, France, on the 10th of July, 1509. He was early sent to the University of Paris to study for the Church, and benefices were given him while a mere boy. His father wished him to exchange theology for law; and it was easy for him to comply, for by Olivétan's advice he had been studying the Bible, and was beginning to make earnest inquiries after truth. He was fond of solitude; he "scorned delights and lived laborious days." To study law he went to the University of Orleans, thence to Bourges. Here he made acquaintance with Wolmar, a reformer, with whom he studied Greek, and whose views he adopted and began to preach (1528). After the death of his father he went again to Paris. Persecution was raging against the Evangelicals; and Calvin began his course as author with a commentary on Seneca's treatise "De Clementia" (1532). now resigned his benefices, gave up the law, and associated himself with the persecuted party. In 1533, in consequence of a discourse favourable to the Lutheran doctrines, delivered by Cop, the new regent of the Sorbonne, and which Calvin had written for him, they had both to fly from Paris. Calvin led a wandering life, and found a protector in Margaret, Queen of Navarre, at Nérac. Here he first met Lefèvre d'Étaples. He was at Paris again in 1534, but found no rest there; and in the summer, after publishing his "Psychopannychia," an argument against the doctrine of a sleep of the soul after death, he went to Basel, where the Reformation was already established. At Basel, early in 1536, Calvin published anonymously his "Institutio Christianæ Religionis." It was just twenty years since the Greek Testament of Erasmus had been published in the same city. Calvin now visited Italy, but to escape the Inquisition soon withdrew; and in August he first appeared at Geneva. It was a memorable year in the history of the Reformation, marked by the publication of Calvin's magnum opus, by the death of Erasmus, the beginning of Calvin's work at Geneva, the burning of Tyndale at Vilvorde, and the dissolution of the smaller monasteries in England.

Calvin was warmly welcomed at Geneva, for the Lutherans, with Farel at their head, had just got the upper hand. Without accepting any office he consented to preach and to lecture on theology. The next year a confession of Faith and a scheme of Church government were adopted, and the citizens were required to swear to the confession. The pressure of the system became so severe as to be intolerable; and in 1538 the Reformers were expelled. After a visit to Berne, Calvin went to Strasburg, where Lutheranism had been introduced by Bucer about ten years before. He found himself now called to act on a larger field, and was brought into contact with many eminent men. He was appointed professor of theology and pastor to the congregation of French refugees. As deputy for Strasburg he attended the conferences of Frankfort, Worms, and Ratisbon; made the acquaintance of Melanchthon, and took part in the attempt to reconcile the partisans of Luther and Zwingli on the subject of the Lord's Supper. It was at Strasburg that Calvin married (1539). He lost his wife ten years later.

When Cardinal Sadoleto attempted to recall the Genevese to Rome, Calvin wrote to them to strengthen them in their faith. After three years he was recalled (1541); and he lost no time in realizing his ideal of Church government. His project was approved by the council; and such a "union of Church and State" was hardly ever seen as existed in Geneva for more than twenty years. A consistory, established to watch over the morals and the manners of the citizens, did stern battle with evil-doers, wrong thinkers, revilers, and all manner of frivolous persons. Even children did not escape its inquisition and its rod. Calvin's influence was paramount in both civil and ecclesiastical affairs. His aim was to make Geneva not only a model city and pattern of the kingdom of God, but the central citadel of Protestantism. His personal labours were marvellous. As preacher, as professor, as president of the consistory, as controversialist, correspondent, and author, his hands were always full. He had not time, he said, to look out of his house at the blessed sun. If he made Geneva "the Rome of Protestants," he made himself its prince-bishop or pope. His rule lasted from his recall twentythree years.

Calvin's controversy with the Lutherans began about 1554, and its result was the separation and recognition of the Calvinists as the Reformed

Church. In 1561 Calvin was invited to settle at Paris, but he declined to leave Geneva. About the same time appeared complete his Commentaries on the New Testament. Calvin was one of those men who astonish the world by an early maturity of thought. He was only twenty-six when he published his "Institutio;" and though he lived nearly thirty years longer, and the book grew in bulk, the first sketch was substantially identical with the completed work. So wise at twenty-six, but no wiser at fifty-five. A case like those of Pitt and Guizot. It may be questioned whether any other book written by one so young has ever had such power to persuade men. It has been translated into many languages, even into Greek and Arabic. In spite of very ill-health and premature infirmities, Calvin worked on bravely to the last; and after severe sufferings died at Geneva, in the arms of his friend Beza, on the 27th of May, 1564. The collection of his letters is of great interest; and a large mass of manuscripts illustrative of his life and labours is preserved at Geneva.

Of the character of Calvin a recent critic says, "He more than anybody had that inflexible austerity which must ever characterize the man of action. I doubt if a more finished type could be found of the ambitious man, eager to make his thought prevail, because he thinks it true. Careless of wealth, of title, of honour; indifferent to pomp, modest in his life, apparently humble, sacrificing everything to the desire of making others like himself; I hardly know of a man who could match him in these terrible transports. . . . This kind of austere seduction is exercised by those only who work with real conviction. He succeeded simply because he was the most Christian man of his generation."

CHRONOLOGY.

A.D.		Age	A.D.	ge
1509	Born at Noyon.		1538 Banished from Geneva; be-	0
1522	Goes to High School at			29
	Paris			30
1526	Removes to Montaign Col-		1540 Marries; attends Diet at	
	lege	17		31
1527	Obtains living of Marteville;		1541 Publishes plan of Church	
	studies at University of			32
	Orleans	18		36
1528	Goes to Bourges; begins to			38
	teach the doctrine of the		1549 Draws up the Zurich "Con-	-
	Reformation	19		40
1529	Preaches at Noyon; returns		1551 Invited to England by Cran-	
	to Paris		mer	42
1533	Flies from Paris	24		44
1534	Resigns benefice at Novon;		1554 Contest with Lutherans be-	
	contests with the libertines		gins	45
	begin; challenged by Ser-			50
	vetus	25	1561 Invited to settle at Paris, but	
1536	Arrives at Geneva; lectures	1	declines; "Commentarii in	
	on theology; "Institutio		Novum Testamentum"	52
	Christianæ Religionis"	27		55



LOYOLA.

A.D. 1491-1556.

FOUNDER OF THE SOCIETY OF JESUS—THE COUNTER-REFORMATION.

The birthplace of the founder of the famous Order of the Jesuits was the castle of Loyola, situate in that part of Spanish Biscay which extends towards the Pyrenees, and which is now called Guipuzcoa. He was the eleventh child of Don Bertram, lord of Ognez and Loyola, and Doña Maria Saez y Balde. His father occupied a distinguished position among the nobility of the country, and his mother belonged to an equally illustrious family.

When scarcely fourteen years old, Ignatius was sent to the Court of Ferdinand V., King of Castile, and appointed one of the royal pages; but the restraint and inactivity of court life were distasteful to his enthusiastic mind, and under the auspices of his relative, Don Antonio Manriquez, Duke of Najera, he embraced the profession of arms. He followed

his sovereign in the wars against the Portuguese, the Navarrese, the French, and the Moors, distinguishing himself everywhere by his valour. His gallantry and courtly bearing were equal to his bravery, and the young soldier seemed destined for a brilliant position in the world, when a wound in the leg, received when heroically defending the city of Pampeluna against the French (1521), left him a prisoner and a cripple. was the turning-point in his remarkable career. The French treated their prisoners well, especially Ignatius, whose prowess they admired. They conveyed him to their general's headquarters, and then sent him in a litter to his father's castle of Lovola. There the surgeons thought it necessary to break and reset the wounded limb, which had been unskilfully set in the first instance. This cruel operation placed the life of Ignatius in extreme danger, and the last sacraments were administered to him on the eve of the Feast of SS. Peter and Paul. Contrary to all expectation he recovered, and he always regarded his restoration to health as miraculous, attributing it to the intercession of St. Peter. Being obliged to keep his bed for a long time, he read, in default of other books, the "Lives of the Saints," and there arose in his heart an ardent longing to follow the glorious example of those servants of God.

On regaining his health his penance began with a pilgrimage to the sanctuary of Our Lady of Monserrat, near Barcelona, where, having made a general confession of his sins, he consecrated himself to the Lord with a vow of perpetual chastity. He hung up his arms over the altar, as at once a votive offering significative of his renunciation of the works of the flesh, and an emblem of his entire devotion to the spiritual warfare to which he was from that moment vowed. Changing clothes with a beggar, and concealing his name and rank, he set out barefooted for the village of Manresa, where he took his lodging among the poor of the town hospital. The fastings, vigils, and other mortifications which he practised there rendered his appearance so repulsive and ridiculous, that when he went out to beg for his subsistence the children hooted him, and pelted him with stones. Ignatius joyfully endured these outrages, but finding subsequently that some of the inhabitants treated him with admiration and respect, he concealed himself in a cavern a quarter of a league distant. Being found one day, half-dead from his excessive austerities, at the mouth of his cavern, he was taken back to the hospital of Manresa. There he remained ten months, tortured at first with scruples and oppressed with a profound melancholy, but afterwards, being consoled with celestial visions and spiritual graces, he began to labour for the salvation of souls, and composed his famous work of the "Spiritual Exercises."

From Manresa he went to Rome, and then visited the Holy Places at Jerusalem (1523). The contrast of his ignorance with the loftiness of his views caused him to be coolly received by the Franciscans, to whom he addressed himself; but this check conveyed to him a useful lesson.

He perceived that fewer external mortifications and a larger amount of study would enable him to attain the object he had so much at heart. He therefore exchanged his pilgrim's habit for the garb of a student, and the next year found him at Barcelona, in a public school, striving, with infinite labour, to master the Latin grammar at the age of thirty-three.

He continued his studies at Alcala, Salamanca, and Paris, where he arrived in February, 1528. He resumed his classical studies at the Collège Montaign, followed another course of philosophy at that of Sainte-Barbe, was taught theology by the Dominicans, and was admitted Master of Arts in 1534.

At this period the Church was everywhere threatened by the advancing tide of Protestantism. In all parts of Germany, in Holland, in England, and in France, the right of private judgment was openly advocated, the fundamental truths of Revelation were questioned, and every one's faith seemed to be more or less shaken. Ignatius saw the necessity of stemming, without loss of time, the torrent which threatened to overwhelm the Catholic Church. It was a difficult task, for the spirit of the age was not favourable to religious associations. However, after a long resistance, Pierre Le Fèvre, a poor Savoyard priest, yielded to the entreaties of Ignatius; Francis Xavier, a Navarrese gentleman, who taught philosophy in the College of Beauvais, was also gained over to the cause; as were the Spaniards, Jaime Lainez, Alfonso Salmeron, Nicolas Bobadilla, and the Portuguese, Simon Rodriguez.

On the Feast of the Assumption, 1534, Ignatius and his friends repaired to the convent of the nuns of Montmartre. Le Fèvre celebrated Mass in a subterranean chapel, and then they pledged themselves by a solemn oath to consecrate their existence to the service of religion. At the beginning of the year 1537, Ignatius found himself at Venice with his companions, and on this occasion he was admitted to the priesthood. Thence he repaired to Rome to seek the patronage of Paul III. When he believed the proper time had come for founding his institute and establishing a religious Order, he summoned to Rome his companions, who approved his design (1538). Afterwards Ignatius presented to the Supreme Pontiff the plan of his institute, which was formally approved by the bull of the 27th of September, 1540, the name given to the new Order being the "Society of Jesus," according to the desire of its founder.

In spite of his resistance, Ignatius was elected General of the Society; he 'gave it most wise "Constitutions," governed it with admirable prudence, and had the consolation of seeing it spread over the whole world previous to his death, which occurred at Rome, on the 31st of July, 1556. He was beatified in 1609, and canonized in 1622.

St. Ignatius was of middle stature, rather low than tall; of a brown complexion, bald head, his eyes deep-set and full of fire; his forehead large, and his nose aquiline. He halted a little in consequence of the

wound he received at Pampeluna; but he managed himself so well in

walking that it was scarcely perceived.

St. Ignatius was certainly one of the greatest characters of his age. With regard to the religious work carried on by his famous Order there naturally exists a wide divergence of opinion, but it is universally admitted that the Jesuits have rendered signal services to the Roman Church. It is also generally acknowledged that they have benefited mankind by their efforts in education, in linguistic and natural science, and, above all, by their missions, which have spread light in various lands, and have been a bond of union between civilization and the savage state.

CHRONOLOGY.

.D.		Age	A.D. A	ge
491	Born in Guipuzcoa.	•	1528 Liberated; goes to Paris :	37
1505	Enters household of Ferdi-		1534 Degree of M.A.; with Lainez	
	nand V	14	and others founds Order of	
521	Wounded at defence of Pam-		Jesuits	43
	peluna	30	1536 Meets members of the Order	
522	Resolves to devote himself to		at Venice	45
	the Church	31	1541 E ected General of the Order	
523	Visits Rome and Jerusalem .	32	for three years	50
526	Goes to University of Alcala	35	1548 "Exercises Spirituales"	57
527	Imprisoned in Inquisition at		1556 Dies at Rome	
	Salamanca			



BOSSUET.

A.D. 1627-1704. CATHOLICISM IN FRANCE.

This eminent prelate, the greatest of Christian orators, and one of the most brilliant lights of the Church in modern times, was born at Dijon, September, 1627. He belonged to an honourable family, many members of which held important offices in the magistracy. The instructions which he received, and the living examples which surrounded him from his cradle, implanted in his mind sentiments of religion and of solid piety, and he took care to preserve and transmit this precious inheritance. He pursued his studies with the most signal success in the Jesuit College at Dijon. In spite of the vivacity of his age and his mind, he was of serious habits; his character was grave and pensive; and he displayed intense ardour for study and virtuous inclinations, which appeared clearly to reveal his vocation, and which were to add the glory of a spotless life to

the splendour of his genius. His inclinations and tastes were in accordance with the wishes of his family, who had destined him for the ecclesiastical profession.

At the age of fifteen he was sent to Paris to continue his studies in the Collège de Navarre, under the celebrated Dr. Nicholas Cornet, who admitted him among the bacheliers of the college, an honour never before conferred on any one until he had taken his degree in theology. It was in January, 1648, that Bossuet took this degree, and justified the exceptional favour accorded to him by the talent displayed in his thèse de bachelier. The fame of this oration was much enhanced by its being dedicated to, and delivered in the presence of, the Grand Condé, who attended the ceremony with his suite of courtiers.

After being ordained priest in 1652 he spent six years at Metz, where he was a canon and archdeacon. Here he devoted himself with assiduity to preaching and the other functions of his sacred ministry, but principally to the instruction of Protestants, for which he displayed remarkable aptitude. One circumstance which redounds to the credit of Bossuet is that in his relations and his controversies with the Protestants he always manifested a spirit of gentleness and of moderation, which contributed, no less than his talents, to the triumph of the Church.

For ten years (1659-69) he was summoned to Paris to deliver the Lent and Advent sermons before Louis XIV. and his court, one noticeable characteristic of his preaching being plain speaking and the absence of flattery. During this period he likewise appeared in all the pulpits of Paris, and such was the fecundity of his genius that he never repeated the same sermon, and in treating the same-subjects he approached them from a different point of view and dealt with them in a novel manner. In addition to preaching, he continued to take interest in the conversion of Protestants. His famous "Exposition de la Doctrine de l'Église Catholique sur les Matières de Controverse" was composed principally for the instruction of Turenne. It had the effect of removing all the doubts of that great warrior, and of leading him to make his abjuration in 1668. Numerous copies of the work were circulated in MS., but it was not till 1671 that Bossuet, at the urgent solicitation of Turenne himself. consented to its being printed. It was received with universal approba tion by the Catholic world, and translated into many languages.

In 1669 Louis XIV. appointed Bossuet to the bishopric of Condom. He received the bulls from the Pope, and was consecrated, but never took possession of the see. Meanwhile he had aroused great enthusiasm by his magnificent funeral oration on Henrietta Maria, widow of Charles I., King of England, and a few months later he delivered the funeral oration of the Princess Henrietta of England, wife of the Duke of Orleans. Louis XIV. now appointed him tutor to the Dauphin, for whose instruction Bossuet composed three of his chief works: the "Traité de la

Connaissance de Dieu et de soi-même," the "Politique tirée de l'Écriture sainte," and the "Discours sur l'Histoire Universelle."

While at court Bossuet did not abandon his serious habits and his taste for study and meditation. His virtues and his genius inspired an equal respect, and gave him an influence which he exercised in more than one direction to advance the interests of religion. Thus he contributed by his exhortations and his letters to fortify the courage and the good resolutions of the Duchesse de la Vallière, and he was intrusted by her with the task of removing the obstacles that lay in the way of her executing her design of closing her days in the austere retreat of the Carmelites.

The French Academy hastened to elect Bossuet among its members soon after he had been nominated tutor to the Dauphin. When the education of the Prince was terminated he received, in 1680, the title of Chief Almoner to the Dauphiness, and in the following year he was appointed to the bishopric of Meaux. It was in the latter capacity that he took part, as deputy of the province of Paris, in the proceedings of the famous assembly of the clergy in 1682, of which he was the soul and the mouthpiece. This assembly was held in consequence of the differences which had arisen between Louis XIV, and Pope Innocent XI, on the subject of the régale, or the right claimed by the kings of France to the revenues of every vacant see within their dominions, and to collate to the simple benefices within its jurisdiction. It fell to the lot of Bossuet to pronounce the inaugural sermon, and it was on this occasion that he delivered the celebrated discourse on "The Unity of the Church," the object of which was to establish on unshakable foundations the authority of the Holy See, and to indicate at the same time, by an appeal to tradition, its extent and limits. The assembly afterwards drew up their famous Declaration, which was penned by Bossuet. It consists of four articles, the last of which declares, "That in questions of faith the Pope is the principal authority, and that his decisions extend over the Universal Church, and each Church in particular; but that unless they have the consent of the Church they are not irreformable." This "Gallican" theory was always stoutly contested, but it continued to be held by a minority in the Roman Church, until the question was finally set at rest in our own day by the decision of the Vatican Council.

Although Bossuet was still attached to the court by his office of Almoner to the Dauphiness, he resided as much as possible in his diocese, where he discharged his episcopal duties with scrupulous exactitude. On several memorable occasions he was recalled to the court to utter the voice of religion over the tombs of the great ones of the earth. His last funeral discourse was delivered on the death of the Prince of Condé (1687), when the Bishop of Meaux displayed all the power and sublimity of Christian eloquence. Among his various occupations, Bossuet never

ceased to labour for the conversion of Protestants. Perhaps his greatest controversial work is "L'Histoire des Variations des Églises Protestantes." Another controversy in which he engaged had reference to the "quietism" of Madame de Guyon, and of Bishop Fénelon, which he strenuously denounced. He also had a correspondence with Leibnitz respecting a proposed corporate reunion of the Lutherans with the Roman Church, but these negotiations led to no result.

He resigned the See of Meaux in October, 1703, and died on the 12th of April, 1704.

CHRONOLOGY.

A.D.	A	lge	A.D.					Age
627	Born at Dijon.		1681	Bishop of Meaux;	"I	isc	ours	3
642	Studies at Paris	15		sur l'Histoire Un				
647	Admitted to Corporation of		1688	"Histoire des Var	iati	ons	des	3
	Navarre College	20		Églises Protestai				
1652	Degree of D.D.; enters holy		1690	Negotiations with	I	eib	nitz	
	orders	25		for union of Luth	era	ns	with	1
L669	Bishop of Condom	42		the Church				
	-81 Tutor to the Dauphin . 43-		1696	Fénelon exiled				69
1671	Member of the French Aca-		1697	Councillor of State				70
	demy	4.1	1704	Dies at Paris				77



JOHN WESLEY.

A.D. 1703-1791. METHODISM.

Wesley's long life covers almost the whole of the eighteenth century, and the force which he represented was in strong antagonism with some of its predominant moral characteristics. It was par excellence the "Age of Reason," and this not for England alone, but for Western Europe. It is admitted that in England there was a great decay of the distinctly religious life, and at the same time a general corruption of morals and manners. Ecclesiastical forms and institutions stood in their usual places; preachers paid to do it read mild sermons, and the middle classes went to hear them. To go was their very religion. But in "society" belief was laughed at, and the "lower classes" were left to grind out their dreary existence in heathenish ignorance and animalism. The sermons were as a rule merely settings forth of morality

and the decencies of social life. "Virtue" was the word. The emphatic insistence on Christian doctrines, so marked after the Reformaion and during the triumph of Puritanism, had died out. Nor was appeal made to religious feeling by the calmly read discourse in the pulpit, or by the favourite book of the time, "The Whole Duty of Man." "Religion, in its proper sense, was a thing not recognized at all." (Foster.) This chilly torpor was common to the Church of England and the Dissenters. (Exceptions, of course, there were. The heavenly fire was not, nor ever can be, extinct.) The Universities were almost as good as dead, for there was little teaching, study, or discipline in them. The philosophy of Locke and its derivative systems gained the upper hand, divinity had become unspiritual and latitudinarian, and infidelity walked without disguise through the land. The Deistic writers set up natural religion in opposition to Christianity; and Christian apologists recommended their own faith as little other than natural religion with an appendix of historical evidence.

Clearly there was a great want. The valley was full of bones, and lo, they were very dry. From scattered pious souls went up the prayer, "Come, O breath, and breathe upon these slain that they may live." The want and the prayer implied a promise and a hope. The hour for the religious revival was at hand, and the man.

John Wesley, the principal founder of Methodism, was a son of the elder Samuel Wesley, rector of Epworth, in Lincolnshire, and was born there on the 17th [28th] of June, 1703. His father and mother had been brought up Nonconformists. In his sixth year he narrowly escaped death by the burning of his father's house. He was educated at the Charterhouse and at Christchurch, Oxford, which he entered in 1720. Having taken his degree of B.A. he was ordained deacon, chosen Fellow of Lincoln College, and appointed Greek Lecturer. His singular seriousness, which had already amused the frivolous, was now deepened and intensified by the influence of William Law, whose "Christian Perfection" and "Serious Call" fell into his hands about 1727. He had still earlier been impressed by the "Imitatio Christi," and by Taylor's "Holy Living and Holy Dying;" and a strong ascetic tendency showed itself during his Oxford life. In 1728 a few of the students formed themselves into a society for the purpose of help in their studies and, the more serious use of their time. Among them were Charles Wesley, George Whitefield, and James Hervey, author of the "Meditations." John Wesley was absent, engaged as curate to his father; but after taking priest's orders he returned to Oxford and joined the little society. Plenty of nicknames were found for this group of earnest men, and one of them became famous -"The Methodists." Soon they began to visit the sick and prisoners. But in a few years the society declined in numbers and seemed on the point of extinction.

In 1735, Wesley, with his brother Charles, accompanied General Oglethorpe to his new colony of Georgia, in North America, to preach to the Indians. On the voyage he became acquainted with some Moravians, and was much interested in their views. Wesley was at this time a High Churchman, making much of ritual, forms, and discipline. After two years he had to leave Georgia, in consequence of a law-suit growing out of a love affair. Whitefield had meanwhile been preaching and stirring up a great religious excitement in England. Just as Wesley arrived Whitefield sailed for Georgia. Wesley continued to associate with the Moravians, and first learnt from them the doctrine of justification by faith.

A profound change, his conversion or new birth, was wrought in him, we are told, on a May evening in 1738, while attending a religious meeting in London. Lecky notes this as an epoch in English history, as the true source of Methodism. Wesley immediately made a visit to the Moravian settlement at Herrnhut, and stayed a week or two. After his return he and Whitefield took up energetically their common work, the invasion of English heathendom. But so offensive were their methods both to churchmen and dissenters, that in a little while they found pulpits closed against them. They must therefore have chapels of their own; and the first was built early in 1739. Whitefield presently began the practice of field-preaching, Wesley at first reluctant. They preached extempore, and their power over masses of poor ignorant people was prodigious.

In 1740, Wesley broke with the Moravians on some points of doctrine, and also with Whitefield, who took decisively the Calvinistic road. Although Wesley expelled his friend from the Methodist Society their friendship was only interrupted, not extinguished. In 1741 lay preachers began to be appointed, a great and pregnant innovation, to which Wesley again reluctantly consented. His labours were incessant. He travelled through England, Scotland, and Ireland, preached several times a day, and scarcely allowed himself any rest.

Intense and dangerous excitement attended these early Methodist meetings. People were terrified, they screamed, fainted, went into convulsions, and not a few fell into madness. But these paroxysms after a time declined and ceased. The preachers frequently suffered harsh treatment at the hands of infuriated mobs, instigated sometimes by their "betters." The movement was a kind of volcanic outburst, disrupting all level surfaces, and submerging decorum under hot lava-streams of feeling. The ways of Providence are mysterious.

In 1743 he provided for the permanence of the Methodist Society by drawing up an elaborate constitution for it, the supreme power being vested in a Conference composed exclusively of ministers. The first Conference met in June, 1744. In 1751 Wesley married, but the union

was an unhappy one, and his wife deserted him. She died in 1781. The Wesleyan hymn-book, the joint production of John and Charles Wesley, was published in 1753. The "Arminian Magazine" was started in 1780, and was edited by Wesley till his death. Age scarcely diminished his labours as preacher and writer. He died in London, after a short illness, on the 2nd of March, 1791, having survived Whitefield more than twenty years. If Wesley's monument be asked after, the answer is the old "Circumspice:" The Methodist Societies spread over all English-speaking lands, and others besides, are said now to number twelve million souls. Nor are these societies his only monument. His influence was felt within the pale of the Established Church and by the Nonconformist bodies; and to it must be attributed, at least in part, the more quiet religious revival known as the Evangelical movement.

Of the place of Methodism in religious history, a recent American writer speaks as follows: "Puritan Orthodoxy places the essence of Christianity in something intellectual, which it calls faith. Catholicism places it in the act; Methodism puts it in feeling. Methodism has done its work for Christianity, by making the love-principle prominent in all its operations. The Roman Catholic Church sums up all the inspirations of the past, collects in its large repertory all ancient liturgies, all saintly lives, all sacred customs, and so brings an imposing authority, a reverend antiquity, made up of the best history of man. Methodism drops the past and finds God in the present—in present inspirations, in the newly converted soul, born into light by the immediate coming of the Spirit of God."

CHRONOLOGY.

A.D. Age	A.D. Age
1703 Born at Epworth.	1740 Excluded from Moravian pul-
1714-19 Scholar at Charterhouse 11-16	pits 37
1720 Enters Christ Church, Oxford 17	1741 Separates from Whitefield;
1725 Ordained deacon	preaches before Oxford
1727 Degree of M.A 24	University 38
1728 Ordained priest; joins asso-	1742 Reconciled with Whitefield . 39
ciation of students (Metho-	1744 Takes part in first Conference 41
dists) 25	1749 Visits Ireland 46
1735 Goes to Georgia, U.S.A 32	1751 Marries; visits Scotland 48
1737 Returns 34	1753 "Hymns published" 50
1738 Visits Moravians at Herrn-	1757 Again visits Scotland 54
hut 35	1781 Death of wife 79
1739 Begins field-preaching 36	1791 Dies in London 88

BOOK IV.

Philosophy.

METAPHYSICIANS-PSYCHOLOGISTS -MORALISTS.

INTRODUCTION.

Philosophy in its special meaning designates the highest and noblest knowledge which man can achieve, or to which man can aspire. In the order of time man first knows that something is, next what it is, next whence and how it begins to be, and last for what end it exists, or what is its place in the universe of being. The first of these steps gives facts, the next c'assification and language, the next explanation by causes and laws, and the last reconstruction by system and design. Science is simply common knowledge made exact and complete within a special and limited sphere; philosophy is the science of knowledge itself in its processes, its objects, its products. It is the Science of Sciences, and in the order of thought is fundamental and foremost—the Scientia Scientiarum.

The first beginnings of Philosophy were tentative and unsatisfying. Such were those of the early Greeks before the time of Socrates, who explained the universe either by some single element, as water or fire; or by the relations of number; or by imminent reason or thought. Socrates was the beginner of philosophy proper, inasmuch as he introduced a fixed method for its subsequent development. The sphere of his inquiries was man as contrasted with the material universe. He taught man to study himself that he might become letter. But in so doing he must needs form and define his conceptions. In order to do this he must generalize from individual facts. It was in this way that Socrates laid the foundations of philosophy in the two processes of Definition and Induction. Both these processes assume permanent forces or agencies and relations and properties in the universe of matter and spirit. These

permanent entities became the themes of Plato's splendid discourses, under the title of Ideas. These were conceived by him as incapable of decay or dissolution, and in some sense as dwelling in or related to the Divine mind or soul of the universe. These glorified products of Plato's imagination have often been treated by Plato's admirers and followers, even down to the present time, as permanent and separable entities, or exalted into mythological or deified personages. Aristotle, with a more exact and analytic intellect, elaborated Socrates' doctrine of definition and induction to a careful analysis, and reduced the ideas of Plato to forms inseparable from matter. He also brought the doctrine of the Syllogism nearly into the form which has been retained in all subsequent schools. He furnished the beginnings of Psychology, and wrote profoundly of Life and Natural History, of Morals, of the State, of Poetry, of Aesthetics, of Physics and Metaphysics, and became, by force of his genius and humanity, "the teacher of all the centuries." After Aristotle, the Socratic school deployed into several sections, each of which retained some fragment of the truth taught by the masters, Stoic, Epicurean; Cynie, Academie; Neo-Platonie, and Sceptie; each exerting an important practical influence for good or for evil, but with no great advance or any further positive contributions to the thought of the world.

Christianity followed, professing nothing so little as to teach philosophy, but presenting facts and expressing truths which involved a definite theory of the material and moral universe, and of man as morally responsible to a personal Creator. It was not long before this philosophy began to be matured and expounded in Christian schools, generally in the spirit of Plato. Among the greatest of the early Christian philosophers Augustine stands pre-eminent. During the long night of the Middle Ages the necessity of culture for the clergy led to the establishment of schools at the great ecclesiastical centres, at which scanty outlines and extracts from Aristotle and Plato were the principal guides and authorities for the so-called philosophical exposition and defence of the doctrines of the Church. It was inevitable that the question should sooner or later arise in these schools as to the respective claims of reason and dogma. Even before the Renaissance and the Reformation, Philosophy began to assert its independence. After the capture of Constantinople brought the Greek authors, and the teachers who could read them, into Italy and Central Europe, and the discovery of America, the invention of printing, and the beginnings of modern physics and astronomy had inspired men with a new confidence in the scientific study of nature and of man, Philosophy emerged into a new life. Descartes and Spinoza, Leibnitz and Locke, Bacon and Newton, led the way in various fields of inquiry concerning the nature and trustworthiness of knowledge, concerning Faith and Science, concerning Matter and Spirit, and their reciprocal relations concerning the universe and God. Historically viewed, Locke and Leibnitz are the most considerable figures among these leaders. Locke prepared the way for Berkeley, and Berkeley for Hume, whose extreme and subtle scepticism aroused by reaction the Scottish School of Common Sense, and the critical transcendentalism of Kant.

In France, Locke was introduced by Voltaire, and, misrepresented by Condillac, became unwittingly authority for the sensualistic atheism of Helvetius and Lamettrie. The beginnings of a better philosophy were furnished by Maine de Biran, trained in the school of Leibnitz, and by Royer Collard, a pupil of Dugald Stuart. In Germany, Kant subjected the elements and the processes of human knowledge to a critical examination more severe and comprehensive than it had ever before received in the light of the achievements of modern science and of modern life, the result of which was to vindicate the à priori authority of necessary truths, and at the same time to bring into question the trustworthiness of the intellect that assumed or questioned them. But against the destructive consequences of this cautious criticism, Kant essayed to provide a sufficient barrier in the authority of the Practical Reason and its Categorical Imperative of duty. But Kant raised more questions than he could answer. Hence his philosophy has wrought like leaven in every speculative school since his time, and many of the problems which he started are still as unsolved and unsettled as ever. The service which he rendered to modern philosophy in widening its sphere and in deepening its inquiries cannot be over-estimated. Fichte followed Kant, making a strictly logical application of a part of Kant's theory. Schelling followed Fichte, and endeavoured to avoid the consequences of both by a corrected theory of knowledge and its relation to the absolute in which nature and spirit were conceived as identical. Hegel astonished and captivated his generation by presenting the process and the objects of scientific knowledge in a logical system, whose abstractions he personified into living agencies, capable of self-development, even up to the idea or the reality of God. The critics of these four coryphai of German philosophy have been numerous, and among them are men of great learning and distinguished ability. The so-called German philosophy has exerted a potent influence over the entire civilized world, -in France, Italy, England, and America, and has given form and character to the most important questions and controversies in all these countries.

Meanwhile, philosophical discussion has been taking a new direction from the side of physiology. The doctrine of the permanence of species, which had been accepted since the time of Plato, was effectually called in question by Charles Darwin, and on grounds of induction. To this was added the nebula hypothesis and the physiological doctrine of development taught by Schelling in his Metaphysics, and by the

naturalists of his school. This product was propounded by Herbert Spencer as the great metaphysical discovery of the age. It proposes to account for the history of the universe from its elemental condition, and explains the growth of all forms of being from the most simple to the most complex, as a necessary result of the processes of differentation and integration. It essays also to explain by this single process every product of spiritual activity,—the sciences, the arts, the institutions, the laws, the manners, and the religions of the race.

By its devotees the doctrine is regarded as the sum and substance of the Final Philosophy. By those who reject it it is held to be the last Philosophical Romance. The confident zeal of its advocates is matched by the strong conviction of those who reject it. Its growth and existence cannot be overlooked in a sketch which includes the latest phase of Philosophy.

NOAH PORTER.



PYTHAGORAS.

SIXTH CENTURY B.C.

THE ORIGIN OF PHILOSOPHY.

The sixth century B.C. was one of those rare periods in history when a host of sages seem to have entered the world together, to hold, as it were, a conference to enlighten ordinary mortals. The lives of Confucius, Buddha, Pythagoras, and many others belonging to this age, are enveloped in such a cloud of legendary fact and fable, that the query often arises as to their having existed at all. They may be, and in some cases appear to be, nothing more than the early beginnings of a school of philosophy, or semi-religious system, clustering round the name of some early teacher who is thus rescued from the dusty obscurity of bygone ages and made to father principles that have grown up slowly by the united efforts of many generations of thinkers. It seems a waste of time to collect and repeat apocryphal incidents relating to the lives and education of men

whose names merely represent systems of philosophy, and more to the point to describe succinctly what the systems are.

Pythagoras, it is said, was the founder of a school of philosophy, which had for its object religion, morality, politics, and science. Tradition says he travelled in the East for many years, collecting information in every department of knowledge. He is said to have become a priest in Memphis; to have been initiated into all the sacred mysteries; to have learned astronomy, astrology, and medicine, from the Chaldeans; to have studied the doctrines of Zoroaster, and to have been acquainted with the religions of India; and in his old age to have founded a school at Crotona in Magna Greein.

The general tendency of his political teaching was to establish an aristocracy of letters, to make scientific knowledge the privilege of a small number of initiated, who were to be clothed with the robe of infallibility and govern the world. The scholar passed through successive grades, the listener became a teacher, then a mathematician, and finally, after a rigorous examination, was initiated into the mystic rites of the order.

The leading principles of Pythagorean philosophy are as follows: Number is the foundation of all knowledge; God is the unity of this system of numbers—the one. God is also called the quadrinity (Tetractys), which contains within itself the four elements of space, matter, time, and destiny. God is also the universe; created by the meeting of the finite and infinite. Unity, as understood by the Pythagoreans, is always dual, and contains opposite or antithetical elements, as good and bad, odd and even, perfect and imperfect, male and female, &c. The sun is the immoveable centre of the universe, and the throne of God, round which all the other bodies revolve. Life is represented by a scale of figures, beginning with five, which stands for mere physical existence; vegetable life by six; animal life by seven; human life by eight; future life by nine, and divine life by ten. These symbolize the relative values of life, the scale of perfection.

"The monad is the beginning of everything. From the monad proceeds an indefinite duad, which is subordinate to the monad as to its cause. That from the monad and the indefinite duad proceed numbers, and from numbers signs, and from these last lines of which plane figures consist. From plane figures are derived solid bodies; from solid bodies sensible bodies, of which last there are four elements, fire, water, earth, and air. That the world, which is endued with life and intellect, and which is of a spherical figure, having the earth, which is also spherical and inhabited all over, in its centre, results from a combination of these elements, and derives its motion from them, and also that there are antipodes, and that what is below as respects us, is above in respect to them.

"He also says that the soul of man is divided into three parts: into intuition (nous), and reason (phren), and mind (Thymos); and that the first and last divisions are found also in other animals, but that the middle one, reason, is only found in man. That the chief abode of the soul is in those parts which are between the heart and the brain. And that that portion of it which is in the heart is the mind (Thymos); but that deliberation (nous), and reason (phren), reside in the brain. That the senses are drops from them; that the reasoning sense is immortal; but the others are mortal. That the soul is nourished by the blood; that reasons are the winds of the soul. That the soul is invisible, and so are its reasons, since æther itself is also invisible. That the links of the soul are the veins, the arteries, and the nerves. But when it is vigorous, and is by itself in a quiescent state, its links are words and actions."

The soul has an existence separate from the body; it is a number or unity in itself, and is destined to pass from one body to another, either of men or animals, according to its moral condition; a soul for punishment passes into the body of one of the lower animals.

All numbers were not held in equal honour by the Pythagoreans; they gave a special prominence to numbers one, three, seven, and ten, as well as to the figures in geometry founded on these numbers. They appear to have been more impressed by the harmony or symmetry involved in regular universal calculations than in any virtue found in numbers considered in the abstract, and carried this principle so far as to fix the distances between celestial bodies by the intervals between the notes of the harmonic scale or octave. The distance between the earth and the moon represented a whole tone, that between the moon and Mercury, and Mercury and Venus, was a semi-tone; while between Saturn and the fixed stars there was an interval of a tone and a half. This harmony of the spheres, fanciful as it now seems, appealed strongly to the imagination of men. Even Kepler was induced to spend several years of his life seeking to verify the truth of this diapason of nature.

Pythagoras is said to have made the notable discoveries that the evening and morning star were the same, Venus, and that the earth revolved on its axis. He was the first to propound the "Copernican system of the universe."

Pythagorean philosophy is distinguished by its sentiment of order and harmony in all things; it purports to be a scientific doctrine, resting on the intelligible relations of number and geometrical figures instead of the imaginary qualities and elements of the Ionian school. In this sense it was a step in advance of its competitor, and shows the earnest striving of the human mind to place natural phenomena upon the basis of exact science.

To Pythagoras is attributed the famous discovery of the relation

between the squares formed on the sides of right-angled triangles; several other mathematical theories, as the relations of rational and irrational numbers, and that between commensurable and incommensurable lines; also the mathematical theory of the intervals between the notes of the musical scale.

The aristocratic tendencies of the Pythagorean school ended by gradually separating them from the people into a caste. Public opinion, which was essentially democratic, took alarm; the school was attacked, it is said, and dispersed. A few disciples tried to continue the traditions and teachings, but the society as a whole was broken up, and little remained of Pythagoreanism. A book of their moral precepts, called the "golden verses," supposed to have been written by one of the disciples named Lysis, is the product of a late age, for the Pythagorean principles, more or less modified, still found numerous adherents as late as the second century of our era.

It is in the highest degree probable that there never was a Pythagoras, any more than a Homer. Homer really stands for Hellenie poetry; Pythagoras for Hellenic philosophy. Their works are not the works of any one man, but express respectively the poetic and philosophic genius of the entire people. The nation is heroic in Hercules, lawabiding in Lycurgus, rhapsodic in Homer, reflective in Pythagoras. Socrates, Plato, and Aristotle, the real persons, follow Pythagoras the ideal person, just as the real Æschylus, Sophocles, and Euripides follow the legendary Homer.



SOCRATES.

469-399 в.с.

MORAL PHILOSOPHY.

Socrates was born at Athens, or in Ægina, 469 B.C. (Ol. 77, 3). The great Persian war had come to an end a few years before; Sparta had renounced the headship of the Greek states in favour of Athens; and Pericles began to take part in public affairs the same year that Socrates was born. Æschylus was still living. Sophocles won his first prize in 468, and Euripides began to exhibit in 455. The genius of Phidias and Polygnotus created and adorned the Parthenon; and Athens was made the most splendid of Greek cities. Orators and rhetoricians were attracted to her streets, and under the name of Sophists won an important place in history. The lifetime of Socrates thus includes the most brilliant period of Athenian history; he saw Athens at her zenith, and lived to see her fall.

His father Sophroniscus was a sculptor, his mother Phænarete a midwife. He learnt his father's trade, but early relinquished it, and devoted himself chiefly to the pursuit of knowledge. His first studies were of Physics; but finding no satisfaction in the current speculations and guesses in this field, he abandoned them and turned his attention exclusively to the study of man and morals. He did not begin his task as a teacher till towards the middle of his life. Before that time he had married, unhappily for himself, a Xanthippè, had led an active life among his fellow-citizens, and had honourably distinguished himself as a soldier at the battles of Potidea, Delium, and Amphipolis. His constitution was singularly robust, and enabled him to surpass all his comrades in the endurance of toil, hunger, thirst, and hardships of war and weather. He went barefoot, and wore the same light clothing all the year round. His courage was not confined to the battle-field. He stood equally fearless and unmoved before a tyrant and in the face of a mob. Nothing could terrify him into doing what he deemed to be unjust. Once only he held office as a senator; and on the day when the presidency fell to him he resolutely opposed the unjust condemnation of the generals after the battle of Arginusæ.

The business of his life was teaching. Unlike other philosophers, he did not travel in pursuit of knowledge; he did not write; he had no school; he neither asked nor would receive pay for his instructions. the spirit of a prophet or an apostle he girt himself to his work with an immoveable conviction that he was divinely called to it. His manner was to go about the streets of Athens and talk with any one who came in his way. In outward aspect he presented a strange contrast to the professional and paid teachers of the day, the Sophists. These, wealthy and well-dressed, and accompanied by flocks of admiring disciples; he, poor and poorly clad, ugly to a ridiculous degree, and conversing with men of all classes on any mean subject familiar to them. He was likened to the popular figures of Silenus, which, outwardly ugly, held within them images of the gods. His method of teaching was first by a course of questions arising naturally one after the other to produce a conviction of ignorance or error (his peculiar irony); and then to lead step by step to some truer thought, not by assertion, but by helping the inquirer to detect what was present in his own mind (his obstetrics of the mind). Whatever happened to be the starting-point of conversation he would give it easily a moral turn.

He was especially fond of the young, and was successful to an extraordinary degree in winning their hearts. His aim was always to lead them in a path equally remote from a despairing scepticism like that of the Sophists, and from a grovelling superstition such as was spreading among the people. It is not easily to be apprehended what a rapture of admiration, reverence, and love was called forth by this Silenus shrining a divinity. Strong men in middle age yielded to the witchery of his voice no less than the young, and bowed, often weeping, before this searcher of their hearts.

It was impossible that such a man should escape the usual lot of prophets and reformers. Socrates made enemies of many men whom he humiliated by his remorseless criticism, or by his public denunciation of their vices. Others disliked and dreaded him, on account of his seemingly ambiguous position towards the government and religion of his country. As early as 423 B.c., a formidable assault was made by Aristophanes in one of his masterpieces, "The Clouds." Aristophanes was a man of an earnest conservative temper in politics and religion, and in this play he held up Socrates to ridicule as the Arch-Sophist, and the ringleader of Athenian freethinkers. The great teacher was presented on the stage and made not only ridiculous but odious as a corrupter of religion and morals. The blow told. The satirist gave definite form and utterance to hostile feeling already existing, and even suggested the course ultimately taken.

Socrates, however, was allowed for twenty years longer to pursue his course unmolested by the government. When the Peloponnesian war came to an end, and the Thirty Tyrants were masters of Athens, Critias, his old pupil, being one of them, he was subjected to some persecution; and on the re-establishment of the democratic government, a formal prosecution was instituted. The leader in the cause was one Anytus, a wealthy trader and an influential politician. With him were associated Meletus, a poet, and Lycon, an orator. The charges brought against Socrates, now an old man of seventy, were substantially the same as those put forward by Aristophanes in "The Clouds;" that he did not believe in the gods which the State believed in, that he introduced new gods, and that he corrupted the youth by his teaching. Death was proposed as the penalty.

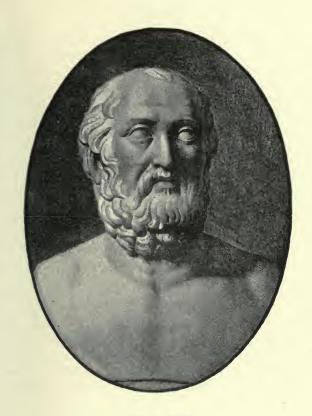
It is not clear what was the exact position of Socrates as to the religion of the State. That he believed in one supreme God, Creator and Ruler of the universe, is clear. That when he touched the tales of mythology he did so with delicate latent laughter and contempt is also clear. But no record is made of any distinct avowal, either of belief or disbelief, in the gods recognized by the State. The charge of introducing new divinities is believed to refer to his constant assertion of an inward voice which he recognized as a divine guide, which, however, never incited to action, but only warned and restrained. This inward divine voice was afterwards spoken of as the dæmon of Socrates, and has been the theme of endless discussions.

Socrates declined to make use of a speech composed for him by the orator Lysias; and he avoided making in his own speech the customary appeals to the passions. He spoke with the confidence inspired by a good

conscience, and at the same time with a consciousness that his condemnation was a foregone conclusion. The spirit and substance of his defence is probably presented to us in the piece known as the "Apology of Socrates," attributed to Plato. Socrates was condemned, but only by a small majority of his judges. His speech, after sentence, in mitigation of the penalty, in which he claimed as his due from the State honour rather than punishment, was so offensive to the Court that it not only remained inexorable, but decreed death by a large majority. fidelity and firmness of the martyr is always in the eyes of the persecutor pride, obstinacy, and wilfulness, and makes his offence the greater. Socrates was sent back to the prison to await the end. He was to drink the cup of hemlock. This would, in the usual course, have followed on the day after the sentence; but the sacred vessel which carried the annual Athenian offering to the temple of Apollo at Delos had just set sail, and during its absence no execution could take place. For thirty days the life of the teacher was prolonged, and during this time his friends had free access to him. Means of escape were offered by some of them, but he declined to avail himself of the offer. Death had no terrors for him; and he conversed with his friends to the last with unaffected serenity and the cheerfulness of faith and hope. On the last day Socrates set before his friends the grounds of his belief in the immortality of the soul.

The conversation is preserved for us, with other details of the closing scene in the dialogue of Plato named after Phædon, the beloved disciple of the master. The sublime pathetic story has moved readers to tears generation after generation. The wonder and beauty of it will shine through the poorest version; and the mysteries of life and death catch some gleams from its glory.

Powerful as was the personal influence of Socrates in his own day, this sinks into insignificance when compared with the vast results of his teaching in after ages. Through his greatest disciple, Plato, his spirit became identical with the spirit of philosophy; and the great schools which sprang up after his death were the offspring of his teaching.



PLATO. 429-348. B.C.

SYNTHETIC PHILOSOPHY.

If it were required to select and name ten men who, by virtue of unique intellectual power and abiding influence on the human race, are entitled to reverent recognition as our greatest men, Plato must assuredly be one of them. A star of the first magnitude in the firmament of mind, appearing above our horizon more than two thousand years ago, he still shines with undecaying brightness, and still as at the first kindles and sustains the higher, truer life of men—the life of thought, of faith and love. True, his disciples, direct recipients of his radiant truth, are inevitably in every age a very small band, selectest spirits of the world. But through these his influence perennially streams upon the world, and thus the large courses of human thought are to a great extent determined. With a pardonable, even justifiable, audacity, Emerson asserts the pre-

eminence of this man in the phrase—" Plato is philosophy, and philosophy Plato." The saying is justified on the large scale of history. Philosophy disappeared from the world with Proclus, the last Platonist of the famous Alexandrian School, about the close of the fifth century of our era. Philosophy reappeared about the middle of the fifteenth century, when the works of Plato were brought to Italy and expounded at Florence by learned Greeks from Constantinople. In the intervening ten centuries the seat of philosophy was usurped by the offspring of Catholic theology and Aristotelian logic, Scholasticism.

It is a very remarkable circumstance, and one which we may quite reasonably regret, that of the man Plato and of the details of his life we are almost wholly ignorant. His written works have come down to us in singular completeness, and surprisingly free from corruption in the text; but in them he never speaks in his own person, nor is any biographical information about him to be gathered from them. to a great age, in one of the most literary cities of the ancient world, was very widely known and held in highest honour, and for all that we have no information about him bearing the stamp of contemporary authority. No dates are assignable to any of his dialogues; so that it is impossible to find in them a clue to the growth of his mind. The philosopher still lives in his works, the man has vanished. As one has said, "There is no personal Plato." Many interesting particulars of his life are indeed given in some extant letters attributed to him; but the genuineness of these letters is at least doubtful. The difficulty of the biographer from dearth of facts is increased by the abundance of fictitious stories told by later writers. We give briefly the usually-accepted story of Plato's life.

He was born at Athens, or in Ægina, about 429 B.C. (Ol. 87, 4), the year in which Pericles died. He was the son of Ariston and Perictione, and was named Aristocles; "Plato" being a surname indicative probably of his broad brows. His life coincides with a most eventful period of Greek history; for not long before his birth the Peloponnesian war had begun, which, after confused struggles protracted through a quarter of a century, ended with the fall of Athens (403). The tyranny of the Thirty, the restoration of the democracy, and the death of Socrates followed within the next four years. In the later years of Plato's life the most memorable change in Greek history was the extension of the Macedonian power under Philip, who within a year of Plato's death became master of the whole of Greece.

Plato could boast of illustrious descent. His mother's ancestors were connected with the family of Solon, his father's were reputed to be connected with the mythical Codrus. He was a nephew of Critias, one of the Thirty, and also of Charmides, one of the Ten. Of robust constitution and thoroughly trained in gymnastics, he could take part in the contests at the Pythian and Isthmian games. His mind was no less

carefully cultivated; he made quick progress in his studies, dipped into the current philosophies, and wrote poems, epic, dramatic, and lyrical. These he afterwards burnt. Some of his epigrams are however preserved. The most important fact in his life, its dominating force, which took the helm and steered him to the end, was his connection with Socrates. It began when he was about twenty years of age, and terminated only with the death of his master. It remains uncertain whether, as usually supposed, he spent the ten years, 409 to 399, in study alone, in the society of Socrates. It seems hardly possible that in such a crisis he should not have taken, like other young Athenians, his share in military service. He was deeply interested in public affairs, and was no stranger to political ambition. But his truthful and pure nature shrank from contact with the corrupt governments of which he had experience; and he was ultimately driven by the prosecution of Socrates into studious seclu-After attending his beloved master during his trial and last days, he guitted Athens, resolved to keep clear of politics and to give himself wholly to philosophy.

He retired first to Megara; then visited Cyrene and Egypt; and some years later Italy and Sicily. In these journeys he met with the Pythagoræan philosophers, whose doctrines powerfully influenced his mind; visited Ætna, made the acquaintance of Dion, and was introduced to the tyrant Dionysius the Elder. Plato is said to have offended him by his bold speaking, and to have been not only sent angrily away, but even sold into slavery. If so, he was soon ransomed, and reached Athens

again about 387.

He now settled there, and began his chosen task as a teacher of philosophy. He had a small house and garden about a mile from the city on the road to Eleusis. It adjoined the "Academia," the precinct sacred to the hero Academus; and here was founded, says Grote, "the earliest of those schools of philosophy which continued for centuries forward to guide and stimulate the speculative minds of Greece and Rome." Pupils were attracted from all cities and parts of Greece. The greatest among them was Aristotle. Demosthenes may have been there. The great geometrician and astronomer, Eudoxus, was one of them. Plato adopted in his teaching the method of Socrates; and like Socrates he taught gratuitously, receiving presents however when offered by the rich. The quiet seclusion of his school presented a striking contrast to the publicity which Socrates sought.

The interesting and important question as to the formal social position respectively of the Sophists and of Socrates and Plato, and of their relation to each other, is still under discussion; Mr. Grote having challenged the common view and argued powerfully in vindication of the Sophists.

After the death of Dionysius the Elder, Plato, at the instance of his friend

Dion, again went to Sicily with a view to assist the younger Dionysius in establishing a better government. The project failed, Dion was banished, and Plato returned home. A second visit likewise ended in failure. These relations with the tyrant of Sicily brought down severe censures on the philosopher; and his last years were saddened both by the disappointment of his high hopes and the reproaches of his enemies. Plato died about 348-7 B.C. (Ol. 108, 1). The school which he had founded and presided over for forty years was carried on in the same place till the siege of Athens by Sylla, 87 B.C., when it was removed within the city. Cicero visited the school and the academy.

Plato never married, had no child, took no part in political affairs or in social gaieties. He lived the life of thought, and his habitual seriousness became proverbial,—"as sad as Plato."

He was the most Socratic of all the disciples of Socrates; and his reverence for his master is shown by the place assigned to him in his works. These are all in the form of dialogues, of which, with one exception, Socrates is the central figure, the speaker of all thought-out conclusions. Plato survived Socrates about fifty years, and all the dialogues were composed during this period. No system of philosophy is built up by Plato. Each dialogue is an independent work, and inconsistencies are to be found not only between separate dialogues, but even within the limits of a single one. Attempts have been made to classify these works, both logically and chronologically, but without success. In range of speculation, and in the harmonious union of the philosophic with the poetic spirit, the works of Plato stand alone. As with Socrates so with Plato, the aim is not so much to teach particular truths as to stimulate inquiry and impart a method. Idlers were warned away from the severe intellectual discipline of the Academy by the inscription over its entrance, "Let no one enter who is not a geometrician." The severity of thought in Plato's writings is, however, relieved by the charm of inimitable style, by consummate dramatic art, and by the play of fancy and imagination.

One of the most constant and most memorable of Plato's doctrines is that of *Ideas* as essences, eternal archetypes, of which all merely outward ever changing objects are but copies or likenesses, and the innate notions of which in our minds are recollections awakened by means of perception of those copies. Plato was thus the first Realist in philosophy; and in his doctrine of Ideas is to be found the origin of the famous controversy of the Middle Ages between Realist and Nominalist.

We owe to him the threefold division of philosophy into Logic (Dialectics), Metaphysics, and Morals, the first sketch of the laws of thought, and the first attempt at the construction of a philosophical language. In his works we find also the first formal development of the spirituality of the soul, and the first attempt to demonstrate its immortality.

His moral conclusions are of the loftiest and most rigorous character, and are announced clearly, positively, and persistently.

In some cases his teaching is a surprising anticipation of a higher doctrine that was to come. So remarkable was this fact to early Christian thinkers that they readily accepted by way of explanation the story of his Eastern travels and communication with the Jews. The same fact led Coleridge to speak of him as "that plank from the wreck of paradise thrown upon the shores of idolatrous Greece." His political philosophy as set forth in the "Republic," his picture of the ideal state, has won for him the distinction of being the first scientific Socialist; the individual and the family, marriage, property, and all are to be sacrificed to the interests of the state. This dialogue is an inquiry into the nature of justice, and the solution is sought by examining into the constitution of a wisely organized state, as exhibiting the quality on a larger scale than that of the individual soul. The work is pervaded by a profoundly religious spirit.

Plato's "Republic" is accessible to English readers in the translation by Davies and Vaughan; and the whole series of his works in the translation by Professor Jowett, the first satisfactory complete English version.

CHRONOLOGY.

B.C.	Age	B.C.	Age
430 Birth.		389 Made voyage in Sicily	. 41
409 Began to hear Socrates .	21	388 Returned; began to teach	in
399 Went to Megara	31	the Academy	. 42
395 Returned to Athens from	tra-	367 Second visit to Sicily	. 63
vels in Italy, Cyrene,	and	347 Died at Athens	. 83
Egypt	25		



ARISTOTLE.

384-322 в.с.

ANALYTIC PHILOSOPHY.

Five men in the world's history have achieved the summit of human greatness: Raphael, Mozart, Shakespeare, Cesar, and Aristotle. It is true that none of their claims are undisputed; by the side of Shakespeare stands Dante; the votes for Beethoven and Michael Angelo are better in quality if not in quantity; the name of Alexander is often mentioned before that of Cesar, and Plato before Aristotle; but in deciding the claims, if we ask which of these have been most useful to the human race, then there can be no question as to who shall stand on the right and who on the left of the entrance to the Pantheon. Raphael has been a hundred times more copied than any other painter; Aristotle has been a hundred times more studied than any other philosopher.

Aristotle, the "living encyclopædia of antiquity," was born at Stageira,

384 B.C., his father occupying an important position at the Court of the King of Macedon. It is probable that from his father, who had written on Medicine and Natural History, he received his first ideas of, and inclination for science, but losing his parents very early, he came under the protection of Proxenus, with whom he resided till his seventeenth year.

At this time, 367 B.c., he came to Athens to enter the school of Plato. The great Academic teacher, however, was just starting on his second voyage to Sicily to the Court of Dionysius, where he remained three years. During his master's absence Aristotle allied himself with the principal disciples of Socrates, especially Xenocrates and Heraclides, and made himself familiar with affairs at Athens, which was then in the height of her glory, and, being independent as to fortune, he denied himself nothing that could serve to culture his mind and body. Although we can know nothing except the merest outlines of his life and habits, the evidence, after careful weighing, gives us only the impression of a life singularly honourable and blameless, devoted to incessant study.

On the return of Plato and the re-opening of the Academy, the young "Stagirite" gave proof of his superior talents and industry, and soon gained the name of "the intellect of the school," and the remark that he needed a bridle, while his more indolent friend Xenocrates had need of the spur. His residence at Athens for the next twenty years, until his thirty-eighth year, may be called the first period of his intellectual life, during which he was the pupil and warm friend of Plato, though differing somewhat in philosophical views. His literary efforts during these years were his dialogues, and a theoretical denunciation of Isocrates, leader of a school of rhetoric. Later, Aristotle followed the attack by opening a rival school, but does not seem to have impressed the Athenians with his superior knowledge of the laws of rhetoric, his reputation resting on his work composed many years later, in which appears none of his early petulance in speaking of Isocrates. His "Dialogues," published at the time, were expository and rhetorical, devoted to attacking Plato's doctrine of ideas, and setting forth his own views of the chief good, the art of government, philosophy, and morals.

In the year 348 B.C., Plato died, succeeded in the Academy by Speusippus; and at this time Aristotle, accompanied by Xenocrates, left Athens, and resided three years at Atarneus, the home of his early guardian. Here he enjoyed intercourse with his philosophical friend, Hermeas, whose adopted daughter or niece he married. The death of the wise and enlightened prince forced Aristotle to leave Atarneus, and he had resided almost three years at Mitylene, when called by Philip, King of Macedon, 343 B.C., to undertake the education of Alexander, then thirteen years of age. Alexander, from earliest years being more

inclined to the sword than the pen, it is hard to believe he acquired anything more than a knowledge of Greek, an interest in Homer and the Attic tragedians, with a course of rhetoric and mathematics. Aristotle, as tutor to the young prince, occupied a position of dignity, accompanied with abundant leisure for prosecuting his researches and independent speculations. He was authorized to rebuild his native city, Stageira, and construct there a palace, where he sometimes taught, associating with Alexander, Nearchus, Theophrastus, Callisthenes, and Ptolemy.

Although for a year before the assassination of Philip the duties of Aristotle as tutor were suspended, he continued to reside at Stageira. But in 335 B.c., when Alexander had really become the King of Macedon, and was preparing for his eastern campaign, Aristotle returned to Athens, and, it cannot be doubted, with considerable éclat, as the favoured friend and teacher of a great conqueror, who had ordered a marble statue of him to be erected at Athens, and who, it is said, furnished considerable means to prosecute his researches. Although it can be hardly credited that Alexander gave the magnificent sum of 200,000l. sterling, yet the certain fact is, that under the most favourable protection possible, Aristotle was permitted to commence in his fiftieth year the building of the great fabric of philosophy and science for which he had been so long preparing.

After twelve years of absence he found Athens somewhat changed. His old friend Xenocrates had become head of the Academy, and then it was that the great Stagirite founded his rival school, the Lyceum, in the neighbourhood of the Temple of Lyceian Apollo, from which it received its name. Here Aristotle "walked and talked," and it is from this singular habit of his promenading during his lecture that the name applied to his followers and school of philosophy, Peripatetic, comes. He made two promenades, that is, gave two lectures during the day, one in the morning, to the most advanced pupils, in which they discussed the more difficult questions of science; the second, in the afternoon, to the larger and less advanced class. This indicates two kinds of teaching, the one secret, for the initiated few, the other public, for the fashionable and more promiscuous audience.

It is this last period of his life, when he set himself simultaneously to writing and teaching, that has the most interest for us, for the rich fruit time had arrived, and in that the bulk of his great works, which still astonish the world by their profundity and variety, were composed. For six years the amiable relations with Alexander existed, and then were only closed by the painful circumstances attending the death of Callisthenes, nephew of Aristotle.

But these circumstances occasioning the coldness which existed between pupil and teacher were forgotten when, in 323 B.C., Alexander died, and the Athenians gave loose rein to their pent-up hate, and visited it upon all who were or had been in any way partisans of the Macedonian king. Aristotle was one of the first to be attacked. It being impossible to arraign him upon a charge of intrigue in politics, from which he had always held himself aloof, they accused him, as they had Socrates, of impiety for having consecrated an altar to his first wife and written a hymn to his friend. He did not want for enemies and detractors, for, absorbed in study and moving in a narrow circle of pupils and scientific friends, he may easily have been cold and reserved in general society, and, no doubt, possessed all those characteristics which he claims in his "Ethics," for the "great-souled man," "who demands great things for himself because he is worthy of them," and "who cannot be an associate with any except a friend."

Assured beforehand of his condemnation, he did not wait to be summoned to the Areopagus, but leaving the affairs of his school in the hands of Theophrastus, his best pupil, retired to Chalcis to await the end of the storm, and "to prevent the Athenians," as he said, "from sinning a second time against Philosophy." But before the storm had blown over, as it invariably must have done, the great philosopher was attacked with a malady of the stomach and died, 322 B.C.

No other philosopher has exerted so large an influence on so many centuries and on the ideas of so many nations as Aristotle. He may be regarded as the creator of natural science, the father of modern psychology, and the originator of the philosophical notions of "matter" and "form." He established the notions of "space" and "time;" showed their connection with matter, and furnished the first cosmological argument for the existence of God. His philosophical method consists in the principle that all our reasoning must be founded on the observation of facts.

The system of Plato carries the stamp of his taste for geometrical abstraction. Aristotle, wishing to do otherwise and better than he, constructed his system with the genius of naturalist, observer, and classifier. In the quality of observer he attaches the greatest importance to the experience of the senses. This it is that must prevail over abstract and theoretical reasoning. He distinguishes with perfect nicety the reasoning by deduction from the reasoning by induction. Notwithstanding the marked tendencies toward empiricism and sensualism, tendencies which he, no doubt, owed to the positive direction of his researches in natural and descriptive science, he has the same ideas as Plato as to the hierarchy of our knowledge; that the knowledge par excellence, is that of first principles and the reason of things, and that syllogism is its proper form. That which distinguishes both the character and philosophical system of Aristotle is the tendency to classification. His researches in Natural History, varied and profound for his age, have been much advanced

upon by modern naturalists, but his great point was, in fixing his attention on the relations of the individual to the species, the species to the kind, and that this suggested to him to push farther by abstraction the hierarchial progression of beings, even to the supreme kind, the abstract

Being.

"Contemporary science, if it was more enlightened and modest," says Barthelemy St. Hilaire, "would proclaim Aristotle its glorious ancestor and precursor; not that he alone made known to the Greeks everything known as science, but he is its most complete and most illustrious representative. He closes the period, for ever lost to human thought, when the too-varied domain of philosophy still comprehended all the sciences consolidated in one mass, which since then has been constantly undergoing division. No one has ever seized upon these things with so vigorous a hand as Aristotle, and he will remain an imperishable and inaccessible model to all ages. Among all sovereign geniuses he will remain the most extraordinary, if not the most attractive. He is in every way worthy of Greece, which alone could have given birth to such a son. At the head of the marvellous personages, of which she has transmitted the works and memories, stands Aristotle, whom his incomparable master named the Universal Understanding and Intelligence."

CHRONOLOGY.

B.C.		Age	B.C.	Age
384 Born at	Stagira.		344 Went from Atarneus to Mity-	
367 Went to	Athens	. 17	lene	40
364 Comme	nced to study unde	r	342 Invited to Court of Philip	42
Plato		. 20	338 "Rhetoric"	46
363 Reputa	tion established; riva	ıl	335 Returned to Athens; marble	
of Xe	nocrates	. 21	statue is erected	49
347 Death	of Plato; left Athen	18	322 Accused of impiety; escaped	
with	Xenocrates for Atarnet	us 37		62



ST. THOMAS AQUINAS.

A.D. 1227-1274.

SCHOLASTICISM.

It is stated that on the assembling of the Council of Trent, essentially a council of war against Lutheranism, the advances of which had rendered it necessary to reconstruct the dogmatic fortifications of the church, there was laid on the desk of the secretary to the council, beside the Bible, a ponderous folio entitled "Summa Theologiæ." It was the masterpiece of St. Thomas of Aquino, produced about three centuries earlier, which had long won acceptance and reverence as the highest authority in theology and philosophy, and was held to contain the final solution of all the problems which were to be discussed at the council. The incident is significant, not only of the extraordinary authority of the book, but also of the character which modern Romanism was to take from it.

The so-called scholastic philosophy, which represented the mode of

thought of the cultivated classes for several centuries of the period known as the Middle Ages, and impresses of which are still traceable in the beliefs and ways of thinking of modern Christendom, was not strictly philosophy at all. Its first principles were given by theology or the authority of the church; and all that human reason was allowed to do was to strive to give these a form of science. The theology was that of the great Latin Father, Augustine; the instruments applied to construct a formal science out of it were the logic and metaphysics (Dialectics) of Aristotle. Reason was thus merely auxiliary to theology. A closer alliance between these two appeared at a later stage; and this was at length followed by the gradual emancipation and independence of reason. Of this system Thomas Aquinas is one of the chief expounders. He ranks as one of its five patriarchs, and amongst them is facile princeps. His personal title among the Schoolmen is the Angelical Doctor, or the Angel of the Schools.

He was born in 1227, of a great feudal family, the Counts of Aquino, whose seat was the castle of Rocca Secca, near the famous monastery of The family were connected with the Hohenstaufens, and thus with the Emperor Frederick II. Thomas received his earliest instruction at Monte Cassino, whence he passed, about 1240, to the newly-founded university of Naples. A thoughtful boy, fond of study from his earliest years, he was not eager to run with others the race of worldly ambition or to fight his way with the sword to honours and rewards. These things he rather shunned, and turned with longing to the secluded quiet of the monastic life, of which he had already seen something. Without the knowledge of his family he entered in his fifteenth year the Dominican convent at Naples, and steadfastly resisted all endeavours to change his purpose. It is said that being sent to France he was seized soon after setting out by his two brothers, who kept him in confinement for a year or more, till his release was ordered by the emperor.

He made profession as a Dominican in 1243, and then became a pupil of Albert the Great, at Cologne. From this master he learnt the doctrine which he afterwards taught, but in a form more precisely and decisively elaborated. Among his fellow-students his modesty and silence procured him the nickname of "the great dumb ox of Sieily." But when on one occasion a test was applied to his knowledge and capacity they found they were mistaken; and the master declared that the lowings of this ox would one day resound through the world. With Albert he spent a short time at Paris; and after their return to Cologne in 1248 he was ordained priest. It was probably about this time that he began to teach. In 1253 he again went to Paris; and soon afterwards took a leading part in the defence before the pope of the Mendicant Orders against the assaults of the University of Paris. During his visit to Paris he became the friend

of the Franciscan Bonaventura, whose character, so unlike that of Aquinas, was indicated by his title of "Doctor Scraphicus." When he sought the doctor's degree at Paris the university resolved not to admit him; but so great was his renown as a teacher that they were compelled to reseind the resolution, and in 1257 he was received doctor of theology. He was admitted to intimate friendship with Louis IX.; and at the same time his authority as theologian was supreme throughout Europe. Two popes acknowledged him as the greatest theologian of his age.

In 1261 Pope Urban IV. on his accession called him to Rome, to assist in the difficult task of reconciling the Greek and Latin churches. The succeeding pope offered him the archbishopric of Naples; but this he declined, as he did other promotions and dignities. He was content to remain a simple monk, free to devote himself to the arduous task he had chosen. In 1269 he was once more at Paris; but was called again to teach at Naples in 1272. Pope Gregory X. having convoked a General Council at Lyon for 1274, the object of which was to formally settle the union of the Greek and Latin churches, Aquinas was summoned to assist. He set out—the winter was hardly over—and on his way visited the castle of Magenza, the seat of some of his kinsfolk. Here he suddenly fell ill of a fever, and by his own desire was removed to the convent of Fossa Nuova, where he died, still in the prime of life, on the 7th of March, 1274.

The possession of his remains was as eagerly coveted as his living presence and teaching had been. Miracles were of course alleged and believed to be wrought at his tomb. For nearly a century the dispute for his dead body was maintained between the monks of the convent of Fossa Nuova, the Order to which he belonged, and the University of Paris. It was at last settled in favour of the Dominican Order, and the body was removed in 1369 to Toulouse, where a splendid monument was erected to his memory. He had before this, in 1323, been canonized by Pope John XXII. The further honour was reserved for him of being two centuries later named, by Pius V., the Fifth Doctor of the Church.

It is sorry pastime to make merry over such a life and such labours as those of Thomas Aquinas; to dismiss them with laughter and scorn as the author of "Curiosities of Literature" does in his chapter on "Quodlibets." Far wiser and better were it to admire the lofty aim, the unselfish toil, the grand patience of the man, to recognize what portions of solid truth and wisdom he had grasped and taught, and what wholesome influence he exerted in the world, even if after all we have to make with a reverent sadness not for words the acknowledgment that his success was only relative and temporary; and that the problems which he attacked and believed, as the men of his time did, that he had solved, are still unsolved for us.

Aguinas was a man of distinctly philosophical temper. He saw and felt the chronic enigmas of human existence; he faced them with astonishing boldness; and the aim and hope of his life was to serve the world and the church by solving them. To this high task he early set himself with unselfish courage and devotion; and by a lifetime of immensely laborious study accumulated all the learning of his own age, and thus equipped himself for the accomplishment of his grand design. was nothing less than this—to effect a harmony of reason and revelation. His assumptions were that both were of divine origin and authority, and that no truth uttered by the one could contradict any truth uttered by the other. Disgusted with the obscurity and confusion which prevailed in the theologies of the age, he sought to introduce an orderly, consistent, and all-comprehensive system. He published several works which served as preliminaries to the magnum opus. Among these were a Commentary on the so-called "Sententize" of Lombardus, and a "Summa Catholicae Fidei adversus Gentiles." One great service must be mentioned which he rendered to philosophy—that of encouraging and obtaining a complete translation of the works of Aristotle directly from the Greek. Till then only portions of them had been known, and those very imperfectly by Latin translations from the Arabic. After a lifetime of preparation he spent at last nine years in the composition of the "Summa Theologia." of which all we can now say is that it is one of the most astonishing monuments of human labour in the field of mediæval literature, that it was for centuries the oracle of Christendom, and that now it has fallen dumb, modern thought asking questions under quite new conditions. Historically it has one point of great interest; -it was the first attempt to construct a complete system of theology and ethics combined. The system of St. Thomas, especially his view of the sovereignty of divine grace and of predestination, was assailed by Duns Scotus; and a controversy was thus begun which was protracted through centuries between the followers of the two teachers. They were known as Thomists and Scotists.

When did the Middle Ages begin and when did they end? Even if it were possible to draw a sharp line of "delimitation" for the beginning, how could the same be done for the end? For are not the Middle Ages still here present? Are not the forces which gave them their special character still dominant over a large part of the world, over millions of intellects and hearts of men? What is one of the latest and most noteworthy reports that reach us from the Vatican? That the pope has set on foot a movement for the promotion or revival of the study of the great work of St. Thomas of Aquino, and this on the ground that in its teachings alone is to be found the true rest of the intellect, the real salvation of the soul.

The best edition of the works of Aquinas is that of Rome, in 18 vols.

fol., published in 1570-71. Another edition was published at Venice in 20 vols. 4to., in 1745.

CHRONOLOGY.

A.D. Age	A.D. Age
1227 Born at Aquino.	1255 Doctor of Theology at Paris . 28
1240 Studied at Naples 13	1261 Summoned to Rome by Urban
1243 Entered Dominican Order . 16	IV
1244-48 Studied at Cologne and	1269 Returned to Paris 42
Paris under Albertus Mag-	1272 Removed to Naples 45
nus 17–21	1274 Died at Fossi Mion 47
1248 Ordained priest; taught at	
Paris 21	



BACON.

A.D. 1561-1626.

INDUCTION—NATURAL PHILOSOPHY.

Francis Bacon, the youngest of eight children, was born in London. He was a delicate, intelligent child, with much curiosity for natural phenomena. His father was Lord Keeper of the Great Seal under Elizabeth, and when very young Francis was presented to the queen, who, amused with his bright talk, inquired his age, "I am two years older than your majesty's happy reign," replied he.

At thirteen years of age he entered Cambridge, which he quitted after two years' stay, without taking his degree, being little satisfied with the course of study that was followed, and being exceedingly disdainful of the lectures and professors of scholastic philosophy. He had hoped to learn at the University all that was to be known, but he was conscious of a great disappointment. "Men at the end of

the sixteenth century neither knew nor aspired to know more than was to be learned from Aristotle." It was at this time that a thought struck him which exerted an important influence on his after life. "If our study of nature be thus barren, our method must be wrong; might not a better method be found? From that moment there was awakened the appetite which cannot be satiated, and the passion which cannot commit excess."

He was living in the stirring times of the struggle between Elizabeth and the Nonconformists. As his mother was of that party he could not help imbibing something of its spirit, and surrounded by the influences of Court, in which circle his father's position placed him, the feelings of loyal aspiration in behalf of his queen and country would also take firm root; and finally, the idea that the fortunes of the human race might be redeemed by a better application of human industry, once having been entertained, he would want naturally to begin the process. "At this time of his life he probably became imbued with an interest in three great causes—the cause of reformed religion, the cause of his country, and of the human race."

After a voyage in France and the death of his father, he commenced the study of law, and in 1580 was admitted as barrister at Gray's Inn, his fortune not being enough to warrant a life devoted entirely to study and speculation. But a philosopher, who meditated already his plan of the renovation of the sciences, was incapable of being entirely absorbed in the profession of law. Being poor and aspiring to the leisure that wealth gives, he had his eyes incessantly turned towards the Court. Unhappily the Court regarded him as a speculator. "He has much spirit and instruction," said Elizabeth of him, "but in the law he soon shows the end of his knowledge; he is not profound." After that, however, she bestowed upon him a purely honorary position of Counsel Extraordinary to the Crown. His ambition pursued another aim, and he addressed a begging letter to his uncle Burghley, the Grand Treasurer. in substance this: - "I am no longer young; at thirty-one, the sands of life are already half-run. My desire has always been to obtain a modest place of her Majesty, not that I have the thirst of power and honour, like a man born under Jupiter or the sun. I see everything under the influence of a contemplative planet; my principal ambition would be to purge the sciences of the brigands who infest the domains of knowledge, the frivolous disputes, the blind experiments, the popular traditions; and to replace this sad baggage by observations and useful innovations. I desire then a place which shall leave me enough of leisure to realize this ambition."

Bacon was happier under James I., who succeeded Elizabeth in 1603. He pleased this monarch, who made such great pretensions to learning, and entering the House of Commons he obtained in 1604 the title of

BACON.

Advocate-Ordinary to the King, with 40*l*. a year of appointments and a pension of 60*l*. He was in 1607 made Solicitor-General, and in 1613 Attorney-General. In this position we see him putting his eloquence and cleverness to the service of the king, espousing his bad causes, and under all circumstances showing himself the zealous and obsequious defender of the royal will. Always ready to lean his credit on a more powerful influence he attached himself to Buckingham, the favourite of James I., and obtained through him in 1617 the post of Keeper of the Great Seal. Aspiring still higher, he realized his ambition in being made Great Chancellor and Baron Verulam.

It was at this point of his highest elevation that ruin came. period in his life is only too well known. The sagacious Elizabeth had judged well of the unfitness of the great philosopher for political life. "I was the justest judge that was in England these fifty years," pleaded the unfortunate lord; "but it was the justest censure in Parliament that was these two hundred years!" The rest of his public life is nearly a blank, but it is some consolation in this dreary time to know that his belief in the value and virtue and final success of his great enterprise was never shaken. "His earthly comforts were growing colder and colder," says Spedding. "The hopes which he had indulged, first of a comfortable provision for a life of study, then of help to overcome his debts, and lastly of bare means 'to live out of want and die out of ignominy,' had one by one fallen away and left him desolate. But that the 'mine of truth' which he was opening would keep its promise, and that Man would thereby in some future generation be the master of Nature and her forces, was a hope which continued with him to the end, and so refreshed and sustained his spirit, that if the compositions of his last years are distinguishable at all from those of his prime, it is rather by their greater conciseness, solidity, and rapidity of style, than by any signs of exhaustion or decay."

The manner of his death is noteworthy. Like Pliny he was a martyr to his cherished idea, the study of nature. While riding in the country on a cold winter's day, he alighted from his carriage to stuff the body of a newly-killed chicken with snow, an experiment to test the qualities of snow as an antiseptic. In the operation he caught a chill from which he never recovered, dying at a friend's house at which he was obliged to make, as he thought, a temporary halt of a few hours—but which he never left alive.

HIS WORKS. The keynote of the real workings of Bacon's mind is seen in an early treatise mentioned by Spedding.

"His old idea of finding a better study of the laws of nature, having no doubt undergone in the endeavour to realize it many modifications, had at last taken the shape of a treatise in two parts. The first part was to be called 'Experientia Literata' (and was to contain an exposition of BACON. 225

the art of experimenting), that is, of proceeding in scientific order from one experiment to another, making the answer to one question suggest the question to be asked next. The second part was to be called 'Interpretatio Naturae,' and was to explain the method of arriving by degrees at axioms, or general principles in nature; thence by the light of those axioms proceeding to new experiments; and so finally to the discovery of all the secrets of nature's operation—which would include the command over her forces. This great speculation he had now digested in his head into these two parts, and 'proposed hereafter to propound.'"

He believed that he had by accident stumbled upon a thought which duly followed out would in the course of generations make man the master of all natural forces. The "Interpretation of Nature" was, according to his speculation, the "kingdom of man."

The two chief works of Bacon are the "Advancement of Learning" and the "Novum Organum." The former is a sort of essay on the classification of the sciences, a survey of the entire field of nature; the latter is a logical method for the interpretation of nature, the machine for working the field. Practically his scheme of knowledge amounts to this:—

- 1. Concrete knowledge or natural history, embracing the history of natural bodies, fire, water, earth and air, &c. The history of artificial products, and including also civil, ecclesiastical, and literary history.
- 2. Abstract knowledge or science. Speculation: physics the science of nature, and metaphysics the science of form and cause. Practice: mechanics and magic, founded respectively on the two preceding sciences. Mathematics, anthropology, physiology, psychology, politics, logic, and morals. Such, though not precisely under these names, are the sciences which are to be studied by the new Baconian method. What that method was can be best seen by direct reference to the "Novum Organum" itself.

In 1620 he gave to the world the book which with ceaseless retouching had been commenced twelve times, and may be regarded as the one thought of his life. It was his "Novum Organum," "the one of my books to which I attach the highest price." In this work, as indicated by the title, Bacon proposes to substitue for the "Organon" of Aristotle the scholastic logic, the syllogism and principles generally posed à priori, a new "Organon," a logic of experience and induction. This new logic was only presented as the instrument of a vast reform, and the second part of a greater work, of which the prologue, preface, and the general plan were comprised in the same book under the title of "Instauratio Magna."

"Man, being the servant and interpreter of nature, can do and understand so much, and so much only as he has observed in fact or in thought of the course of nature; beyond this he neither knows anything nor can do anything.

"Neither the naked hand nor the understanding left to itself can effect much. It is by instruments and helps that the work is done, which are as much wanted for the understanding as for the hand. And as the instruments of the hand either give motion or guide it, so the instruments of the mind supply either suggestions for the understanding or cautions.

"Human knowledge and human power meet in one; for where the cause is not known the effect cannot be produced. Nature to be commanded must be obeyed; and that which in contemplation is as the cause is in operation as the rule.

"The conclusions of human reason as ordinarily applied in matter of nature, I call for the sake of distinction Anticipations of Nature (as a thing rash or premature). That reason which is elicited from facts by a just and methodical process I call Interpretation of Nature.

"I am of opinion that if men had ready at hand a just history of nature and experience, and laboured diligently thereon; and if they could bind themselves to two rules—the first, to lay aside received opinions and notions; and the second, to refrain the mind for a time from the highest generalizations, and those next to them—they would be able by the native and genuine force of the mind, without any other art, to fall into my form of interpretation. For interpretation is the true and natural work of the mind when freed from impediments. It is true, however, that by my precepts everything will be in more readiness, and much more sure.

"Nor again do I mean to say that no improvement can be made upon these. On the contrary, I that regard the mind not only in its own faculties, but in its connection with things, must needs hold that the art of discovery may advance as discoveries advance."

The end of all was to be the great philosophy of the future, which is Active Science. Here are a few of his prophecies as appended to the "New Atlantis." The prolongation of life, the restitution of youth in some degree, the retardation of age, the curing of diseases counted incurable, the mitigation of pain, more easy and less loathsome purgings, the increasing of strength and activity, the increasing of ability to suffer torture or pain, the altering of complexions, and fatness, and leanness. the altering of statures, the altering of features, the increasing and exalting of the intellectual parts, conversions of bodies into other bodies. making of new species, transplanting of one species into another, instruments of destruction, as of war and poison; exhibitation of the spirits and putting them in good disposition, force of the imagination, either upon another body, or upon the body itself; acceleration of time in maturations, acceleration of time in clarifications, acceleration of putrefaction, acceleration of decoction, acceleration of germination, making rich composts for the earth, impressions of the air, and raising of tempests: great alteration, as in induration, emollition, &c.; turning crude and watery substances into oily and unctuous substances, drawing of new foods out of substances not now in use, making new threads for apparel, and new stuffs, such as paper, glass, &c.; natural divinations, deceptions of the senses, greater pleasures of the senses, artificial minerals and cements.

While soaring on sublime heights we must not forget that the chief end of all speculation is practice, the philosophical is only a means to the practical: all science has prevision for its object.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1561	Born in London.		1613 Attorney General	
1573	Entered Trinity College, Cam-		1616 Privy Councillor	55
	bridge	12	1617 Lord Keeper of the Great Seal	56
1577	Visited Paris	16	1618 Lord Chancellor and Baron	
	Returned to England		Verulam	57
1580	" Of the State of Europe".	19	1619 Viscount of St. Albans	58
1582	Called to the bar	21	1620 "Novum Organum"	59
1597	"Essays"	36	1621 Charged with corruption;	
	Knighted by James I		Great Seal sequestered	
1605	"Advancement of Learning"	41	1622 "History of Henry VII."	
1609	"Wisdom of the Ancients".	48	1626 Died at Highgate	65



DESCARTES.

A.D. 1596-1650. DEDUCTION.

René Descartis was born in Touraine, France, in 1596. His feeble health in childhood gave little promise of the mental vitality his early studies exhibited. The Scholastic methods of the Jesuit college he attended were little to his taste, but, happily, he was able to apply himself to the study of mathematics and the natural sciences, for which he showed more than usual aptitude. After completing his studies at college, he made several voyages, entered into the campaigns against Germany, and was present at the siege of La Rochelle. After this he retired to Holland, where he remained twenty years, devoting himself entirely to the study of philosophy. He learned to conceive it in a wider and more practical sense than was understood by his contemporaries, and

the novelty and excellence of his doctrines gave him admirers in all countries.

But a man who pretended to demonstrate the existence of God, the immortality of the soul, and the origin and truthfulness of our knowledge, in a manner different to the existing theories; who sought, as it was said, to give a mechanical explanation of all the phenomena of nature, who advanced new opinions on almost all subjects, even the circulation of the blood; a man, in fact, who boldly attacked Scholastic philosophy itself, was sure to offend and alarm those who taught and lived by teaching what he was striving to uproot. Enemies arose as well as admirers, endeavouring to entangle him in disputations and polemic writings. Failing in this, they attempted to ruin his reputation, and it was partly on account of this persecution that he determined upon accepting an invitation of the young Swedish queen to visit her, and settle in her domains. He feared the fate of Galileo, and though prevented from burning his manuscripts, by the advice of friends, in 1649, he left Holland for Sweden. After a four months' residence at the Court of Christiana, the rigorous climate and the complete change in his habits, which he made to please the admiring queen, proved too much for him, and he died of inflammation of the lungs, in his fifty-third year.

At a very early age Descartes became attached to the study of mathematics, showing a preference for algebra and geometry. At the age of nineteen, when renouncing the pleasures of the world he had passed two years in retreat, he gave his whole time to the study of geometry. In 1617, while he was in service in Holland, some one posted up in the streets of Breda, a problem to be solved. Descartes saw that all the passers-by stopped to read, but its being written in German made it unintelligible to him. He begged a man by his side to explain it. This man proved to be Beckmann, principal of the College of Dordrecht, and, amused at the idea of a young French officer being interested in a geometrical problem, he consented to explain it on condition that Descartes should solve it. The next morning, when the problem was carried to Beckmann solved, he was very much surprised, but soon found that the young soldier of twenty years knew much more of geometry than the old professor of mathematics at Dordrecht.

Virtue is perhaps rarer than talents, and the speculative philosopher is not always the practical philosopher, but Descartes was both. From his youth he had reasoned out his morale. In allowing doubt to supersede his opinions, he felt that he must hold to certain principles for self-conduct. These were his rules: to retain the religion in which he was born, and to obey at all times the laws and customs of his country; to do nothing to endanger his future liberty; to decide always in favour of the mean, for in morals all that is extreme is almost always vicious; to strive to conquer himself rather than fortune, for it is easier to change

one's desires than the order of the world, and nothing is in our power but our thoughts; to devote his life to the cultivation of the reason.

The first and shortest, yet most important work of Descartes, is his "Discourse on Method," published at Leyden, in 1637. This work may be considered the foundation of modern philosophical investigation, and breathes the spirit of the man with his bold, innovating genius, his exact observations, and vivid imagination. It is divided into six parts, with a preface of fifteen lines, describing its purpose and arrangement. He begins by insisting upon the necessity of a new method, and then lays down the rules on which it should be founded. The most important of these is "never to accept any statement as true which you cannot see yourself to be true." A second rule proposes to divide each difficulty into as many parts as possible in order to solve it the more easily. third, to begin with the most simple and easily understood ideas, ascending by degrees to the more complex; and a fourth requires that all the parts, however small, should be carefully numbered and systematically arranged, so as to be sure no part had been overlooked; he would make philosophy as exact as mathematics. The author then lays down certain moral maxims deduced from his method, and seeks to establish the existence of God and the soul by the same method as a basis for the study of metaphysics.

It was the custom in Descartes' time to publish all learned works in Latin, a language known only to learned men. He revolutionized this custom by publishing his works in French, "appealing to the good sense of men," which he said was "fairly divided among all classes."

The "Discourse on Method" was completed by three other works, on dioptrics, meteors, and geometry, as examples of his method applied to science. The second contains, among other things, the earliest complete description of the cause of a rainbow; the first describes the mathematical principles which should govern the construction of lenses for telescopes; the third is the most important work, and with the "Discourse on Method," forms the most enduring monument of Descartes' genius; he simplifies the investigation of curves and their corresponding equations by a system of co-ordinate lines, and by the same method brings the solution of negative equations within the scope of analytical geometry. Algebra owes to Descartes a simpler notation, the method of indeterminate co-efficients, and the first sketch of the theory of equal roots. He applied algebra to geometry, thus founding a new science—analytical geometry.

In his principles of philosophy he has baid down several natural laws. First, that all bodies remain in their existing state of rest or motion unless acted upon by extraneous causes. Secondly, that simple or elementary motion is always in a straight line; space has no limits and is full of matter; a vacuum cannot exist, nor can matter be divided into

ultimate atoms. His "Theory of Vortices" did away with that of Aristotle, and paved the way for Newton's discovery of gravitation. He starts on the ground that the whole universe is filled with matter, which is uniform in character, and then assumes that the motion given to this matter by the infinite power of God produces a host of more or less circular movements, forming vortices or whirlpools of matter, and that in the centre of the vortex a sun or star is formed.

But the principle of the great reform which he introduced was in his "Discourse on Method." He declared he could find nothing but doubt and uncertainty in the opinions of men on all subjects. He repeats what the sceptic philosopher had already said about the general reasons for suspecting all our so-called knowledge. Our senses, memory, and even the reasoning faculties deceive us, not merely in complex subjects, but even in the simple details of geometry. There seemed only one way to overcome the difficulty, and that was to make universal doubt the point of departure for a new method of reasoning. The one fundamental truth that our existence is proved by the fact that we think, was accepted by him as the foundation of all other truths. "I think, therefore I exist," is the first axiom he lays down. He does not attempt to deduce existence from any anterior fact. He does not demonstrate, he merely proposes an axiom, something known to every one which requires no syllogism to prove it. All his reasoning is based on the principle involved in this axiom, that nothing must be accepted as true which is not susceptible of proof. His method created a revolution in thought, for all through the Middle Ages, and even during the Renaissance, the guiding rule of philosophy had been authority, not certitude; the authority of great names, not a certainty based on self-evident axioms.

CHRONOLOGY.

A.D. Age	A.D. Age
1596 Born at La Haye in Touraine.	1644 "Principes de la Philosophie" 48
1604-12 At Jesuits' College at La	1644 Visited France 48
Flèche 8-16	1647 Received pension from King
1616-20 Served in French army	of France 51
against Holland 20-24	1649 Went to Court of Sweden;
1624-25 Visited Rome 28-29	"Traité des Passions de
1629 Retired to Holland 33	
1637 "Discours de la Méthode 41	1650 Died at Stockholm 54
1641 "Meditationes de Prima Phi-	
logophia" 45	



SPINOZA.
A.D. 1632 1677.
PANTHEISM.

Benedict Spinoza (Baruch d'Espinoza), born at Amsterdam in 1632, was descended from a rich family of Spanish Jews. His early education was directed by a learned Rabbi, and in accordance with the Jewish custom of compelling every boy to acquire a knowledge of some trade, he learned to polish glasses for optical instruments. His study of Hebrew, the Bible, and Talmud while yet a mere boy, filled his mind with doubts, and he brought to his teachers more questions on political and religious history than they could satisfactorily answer. The expression of his liberal views in regard to religion caused him to be summoned several times in his youth before the Jewish Council, and culminated in his being excommunicated from the Synagogue when he reached the age of twenty-four.

Spinoza was not ill-pleased at this result, though it necessitated his leaving his home and family. He resided now with Dr. Vanden Ende, a physician and schoolmaster, whose beautiful and accomplished daughter, although she resolutely refused to accept the homage of the young Spinoza, assisted him greatly in his studies. Besides perfecting his knowledge of Greek and Latin, he began studying the works of Descartes, and upon the impulse arising from the circumstance of the great affinity between the Cartesian doctrine and that to which his doubts had conducted him, he resolved to break entirely and openly with the faith of his family and nation, and exchanged his Jewish name, Baruch, for the Latin form Benedict. But he did not confirm general report by becoming a Christian. He had no desire to be identified with any religious sect.

He resisted all endeavours to be bought or reasoned back into even an outward profession of the Jewish religion, and becoming persecuted, even to an attempt on his life, in 1656 he quitted Amsterdam, living at no great distance in the house of a friend. Afterwards he lived at Rhynsburg, and published here a simple analysis of the ideas of Descartes. But forced by reason of this book to leave the place, he retired to Voorburg, near the Hague, where he hoped to remain in unknown security. But it was not permitted, for curiosity and real admiration brought him scores of visitors, both idle and learned, and in 1669 he made another removal, fixing himself at the Hague, in close relationship with valued friends. Here he spent his remaining years, leading a quiet, studious life, exhibiting such frugality and simplicity that some have called it the life of an anchorite.

He declined to occupy a Professor's Chair at Heidelberg University, and refused the invitation of Louis XIV., made through Condé, to come to France. He stoutly resisted the efforts of friends to place him in a position of greater luxury, alleging that he wanted nothing that would distract him from his studies.

In 1670 Spinoza published his "Tractatus Theologico-Politicus," and on account of the noise it made determined to publish nothing more. But his "Ethics" was published the same year of his death, which took place in 1677, when he succumbed to an aggravated attack of consumption, with which he had been tainted from birth.

In general manner and conversation Spinoza was charmingly affable and gentle, appearing always the same, never too sad or too gay, never showing anger or discontent. He was simple in his attire, dressing like a burgher of his day, and of singularly industrious and regular habits. He made himself greatly beloved by his small circle of friends, while his talents and willingness to expound his theories gained him many admirers in foreign countries.

HIS WORKS.

"The unity of God and the world, of spirit and matter, of soul and body, which Malebranche had conceived in a purely ideal manner, becomes with Spinoza truth and reality. Starting from the idea of substance, as that which to exist has need of nothing else, he shows that the Cartesian notion of thought and extension opposed to each other is contrary to the true definition of substance. If there exists outside of God any other substance, then it has no need of God that it may exist, and it is consequently independent. If, on the contrary, all that one considers as outside of God is dependent on Him, one must deny that there is any substance outside of Him; God, therefore, is the only substance. essence is not merely infinite thought, as Descartes supposed, but matter (res extensa), which had been placed apart from Him by that philosopher, is actually an attribute of God, just as thought is His attribute. Thus, thought and extension, spirit and matter, are two fundamental attributes, two modes by which the unique substance reveals itself to us. The distinction between God and the world is only a logical distinction; that is, these terms are different names of the same essence. universe, inasmuch as its totality is the foundation of all particular existence, natura naturans, is God. On the other hand, the assemblage of accidents by which the fundamental essence presents itself to our observation, natura naturata, is properly called the world."— (Baring-Gould.)

Spinoza made it his principle to admit nothing to be true which he could not recognize on sufficient grounds; and endeavoured to found a system which should deduce the fundamental principles of moral life by strictly mathematical demonstrations, founded on the knowledge of God. To this end he called his system one of Ethics.

"Most of the writers on the affections of man and the conduct of life," he says, "appear to treat, not of natural things, which follow the usual laws of nature, but of things beyond nature; they seem, indeed, to conceive man as an imperium in imperio. For they believe that man rather disturbs than conforms to the order of nature, and, further, that he possesses absolute power over his actions, being influenced and determined in all he does by himself alone. And then they refer the cause of human shortcomings and inconsistencies to no common natural power, but to some—I know not what—vice or defect in human nature, which they forthwith proceed to lament, to deride, to decry, and even more generally to loathe and to execrate; so that he who discourses upon the infirmities of the human soul with more fluency and fervour than common is looked upon as a kind of divine or inspired person.

To such persons it will doubtless appear strange that I should set about treating the vices and follies of mankind in a geometrical way, and

seek to demonstrate on definite principles things which they cry out against as repugnant to reason, as vain, absurd, and even horrible. Yet such is my purpose, for nothing happens in nature that can be ascribed to any vice in its constitution, nature being ever the same, everywhere one, and its inherent power, and power in act identical. I shall in a word discuss human actions, appetites, and emotions precisely as if the question were of lines, planes, and solids."

The chief good, according to Spinoza, is to live a life freed from passion, comprehending the order of things by the highest exercise of the intellect, the knowledge and love of God.

He concludes his great work thus:-

"In what precedes I have delivered all I wish to say in connection with the freedom of the mind. And now we are able to appreciate the wise at their true worth, and to understand how much they are to be preferred to the ignorant, who act from mere appetite or passion. The ignorant man, indeed, besides being agitated in many and various ways by external causes, and never tasting true peace of mind, lives in a state of unconsciousness of himself, of God, and of all things, and only ceases to suffer when he ceases to be; the wise man, on the contrary, in so far as he is truly to be so considered, scarcely knows what mental perturbation means; but conscious of himself, of God, and of that special, eternal necessity of things, never ceases from being, but is always in possession of true peace of mind"

CHRONOLOGY.

A.D.	Ag	0	A.D. Ag	ze
1632	Born at Amsterdam.		1670 "Tractatus Theologico-Poli-	
1656	Excommunicated by the Syna-		ticus" 3	38
	gogue; leaves Amsterdam 2	4	1673 Declined Chair of Philosophy	
1660-	-64 Lived at Rhynsburg . 28-3		at Heidelberg 4	11
	"Renati Descartes Princi-		1677 Died at the Hague 4	15
	piorum Philosophiæ," &c 3	1	1677 Publication of the "Ethics."	
1664	Settled at Voorburg; "Cogi-			
		9		



JOHN LOCKE.

A.D. 1632 1704. SENSATIONALISM.

In the long roll of illustrious Englishmen there are few names more worthy to be held in honourable and even loving remembrance than that of John Locke. One of the greatest among the men of thought, and at the same time one of the purest, most useful, and most disinterested among the men of action, his life presents to us an example of the combination of two forms of activity usually supposed to be incompatible, the philosophical and the political. In addition to these, the public aspects of his life, we must note the charm of his private character, and the story of the friendships in which his affectionate nature found its repose and joy.

As philosopher, Locke is generally recognized as founder of the socalled Sensational school. His claim to this distinction is disputed by some writers, who assign it to his predecessor, Hobbes. The fundamental principle of Locke's system, the derivation of all our knowledge from experience through the senses, is undoubtedly laid down by Hobbes with the utmost clearness. But so wide is the difference between the two thinkers on momentous points, that it is absurd to look upon Locke as a copier or plagiarist from Hobbes. Their agreement in their starting-point is explained by the fact that they were both students of Bacon, and both adopted the method which he had then recently expounded in relation to physical research, and applied it to the study of mind. It is even doubtful whether Locke ever read the works of Hobbes.

As a political writer Locke stood ahead of his age as the fearless and consistent upholder of civil freedom and religious toleration. His influence was widely felt at the crisis of the Revolution, and contributed to the establishment of the new order.

The effect on general modes of thought of Locke's system of philosophy, which rapidly spread, not only in his own country but in France, Holland, and Germany, within the century following its publication, exemplifies the truth that "in every age the speculative philosophy in general acceptance will influence the theology of that age."

Locke was born at the village of Wrington, in Somersetshire, on the 29th of August, 1632. At that time Bacon had been dead six years. Hobbes had reached middle age, and Descartes was in studious retirement in the Netherlands. Pascal was nine years old, Milton was taking his degree of M.A., and Spinoza was born the same year. Locke's father was a country lawyer of superior intelligence, who served under his friend Colonel Popham, in the parliamentary army. In 1646 Locke was sent to Westminster School, which at that time had for headmaster Dr. Busby. In 1652 he entered Christ Church College, Oxford. Like Bacon and Hobbes before him, Locke was disgusted with the barren studies in philosophy and theology then imposed, and gave himself with hearty interest to the classics, and to the reading of Bacon and Descartes, not without admixture, it is said, of romances. He took his degree of B.A. in 1655, and that of M.A. in 1658. His father, towards whom he cherished the highest respect and love, had died in 1661. In the relations between father and son, and in some other particulars, Mr. Fox Bourne, the latest biographer of Locke, points out an interesting parallel with the case of J. S. Mill. For some time Locke hesitated as to the choice of a profession; and at length decided in favour of the medical.

He entered upon his political career in 1665, as secretary to the ambassador to the Elector of Brandenburg; and having acquitted himself well he was offered a similar post at Madrid. He preferred, however, to continue his studies, and therefore returned to Oxford. By a special dispensation he was relieved from the customary obligation of the students of Christ Church of taking holy orders. It was in 1667 that his lifelong intimate acquaintance with Lord Ashley (afterwards first Earl of Shaftes-

bury, the "Achitophel" of Dryden's great satire) began. He became a member of the noble household, as physician, tutor to the only son, and confidential adviser on public and private concerns. He was now introduced to many eminent persons; among them, to the Dukes of Northumberland and Buckingham, and the Earl of Halifax.

While Lord Ashley was Chancellor of the Exchequer, Locke was charged with the drawing up of a constitution for Carolina, then lately granted to Lord Ashley and others. His scheme gave less satisfaction to the colonists than to the proprietors. In 1672 he was appointed Secretary of Presentations, and in the following year Secretary to the Council of Trade and Plantations. This post brought him plenty of hard work, with In 1675 he went for health's sake to the south of merely nominal pay. France, and remained there several years. Recalled to England in 1679, Lord Shaftesbury being then President of the Council, he appears to have resumed his student life at Oxford. He did not escape suspicion of being implicated in the plot in favour of Monmouth; but he resolutely held his tongue, and there is no evidence against him. When Shaftesbury fled to Holland, Locke followed him and remained there several years. So obnoxious was he to the Court, that by an arbitrary act of the King. Charles II., he was expelled from Christ Church; and his person was afterwards demanded of the States-General as a conspirator. He escaped. however, by temporary concealment. During his stay in the Netherlands he became acquainted with Limborck, Leclerc, and other men of mark. And in his enforced retirement he completed his great philosophical work, projected in 1670. His first "Letter on Toleration" was published in Holland.

After the Revolution he returned to England, where hearty welcomes and assured safety awaited him. He declined the offered post of ambassador to Berlin, but accepted that of Commissioner of Appeals; and in 1696 the more important appointment of Commissioner of Trade and Plantations. He became the ruling spirit of the Council, and rendered services of great value. Locke took warm interest and active part in the establishment of the Bank of England, the abolition of the censorship of the press, reform of the coinage, and the promotion of the Irish linen manufacture.

A good deal of obscurity still rests upon Locke's relations with Shaftesbury. How it was possible for a man such as Locke to remain throughout the intimate friend of a man such as Shaftesbury, if the common opinion of them be just, is certainly an enigma. Christie, in his biography of the earl, and Fox Bourne, in his biography of Locke, both maintain the purity and patriotism of the earl; and this, if proved, is the vindication of the philosopher. But there are some strange facts to be explained. According to tradition the autobiography of Shaftesbury was burnt by Locke. All important documents bearing on the case among the Shaftes-

bury papers have disappeared. Locke stood in the thick of the political turmoil with the Minister of State, and yet not a trace of his feelings about it is to be found in his extant letters.

As man of letters, Locke's first work was the "Adversariorum Methodus," a new method of a common-place book (1686). Having completed his great work, the "Essay concerning Human Understanding," he drew up an abstract, which was translated into French by Leclerc (1687). The next year appeared the first "Letter on Toleration." 1690 the "Essay" was published, and immediately attracted the thoughts of men to an unusual extent. Six editions were issued in the author's lifetime; and by means of translations into French and Latin it soon became famous all over Europe. An attempt was made to exclude it from Oxford University. About the same time with the "Essay" Locke published his "Treatise on Civil Government," and his second "Letter on Toleration." These were followed by two other "Letters on Toleration," the last of them a posthumous publication, "Thoughts upon Education," a work "On the Reasonableness of Christianity," with two Vindications, and several theological works. His well-known book "On the Conduct of the Understanding" appeared after his death.

Locke's object in his great work was, as stated by himself, "to inquire into the original, certainty, and extent of human knowledge." Rejecting the Cartesian doctrine of innate ideas, he taught that the mind is a mere tabula rasa, capable of receiving impressions through the senses; and that the ultimate sources of all our "ideas" (mental presentation) are these impressions through the senses and the subsequent operations of the mind upon them, which he called Reflection. He saw the subjective, relative nature of human knowledge, and foresaw the possibility of the Idealist and Sceptical systems afterwards built upon his foundations. Nevertheless he maintained the possibility of a demonstrative knowledge of the existence of God and the immortality of the soul. Whatever may be the shortcomings of Locke's philosophy-and they are real and important-though it fails, like all other systems, to solve the problems of our being, no reader of his "Essay" can refuse to recognize in it the work of a patient, original thinker, a sagacious observer, an accurate recorder, an earnest lover of truth, an honest and modest man. To the attractions of the subject is added the charm of a homely, racy speech, welcome and refreshing to those who love to draw from "wells of English undefiled."

Locke was never married; but his nature was eminently social, and one of the great charms of his biography is the story of his friendships and domestic relations. He suffered habitually from ill-health, but by temperate habits his life was prolonged to more than three-score years and ten.

About the same time that he published the "Essay" he took up his abode in the house of his friend, Sir F. Masham, at Oates, in Essex; and

there he spent the last years of his life. His friendship with Lady Masham began in 1683. She was the daughter of the philosopher, Ralph Cudworth, and inherited her father's love for philosophy and learning. Her young step-daughter, Esther Masham, was a special favourite of the philosopher. After a long decline, soothed by the tender ministrations of this family, Locke died, in the arms of Lady Masham, on the 28th of October, 1704. His remains were interred in the family tomb of his friends at High Laver Church, and a tablet was set up to his memory. In 1855 the tomb, which had fallen into decay, was restored; and among the contributors to this restoration were Victor Cousin and Barthélemi Saint-Hilaire.

CHRONOLOGY.

A.D.		Age	A.D. Age	3
1632	Born at Wrington, near Bristol		1689 "Letters on Toleration"	
1651	Entered Christ Church, Ox-		(written 1667) 57	7
	ford	19	1690 "Essay concerning Human	
1658	Received degree of M.A	26	Understanding "- " Trea-	
1666	Accepted invitation to reside		tise on Civil Government" 58	3
	with Lord Ashley	34	1693 "Thoughts on Education" . 61	
1668	Visited France	36	1695 Commissioner of Trade; "On	
1672	Secretary of Presentations .	40	the Reasonableness of Chris-	
1675	Visited France	43	tianity" 68	3
1682	With Shaftesbury in Holland	50	1704 Died in Essex; "Of the	
1686	"Adversariorum Methodus".	54	Conduct of the Understand-	
1688	Returned to England; Com-		ing"	,
	missioner of Anneals	56		



LEIBNITZ.
A.P. 1648-1716.
OPTIMISM.

LEIBNITZ was a native of Leipzig, where his father was a Jurist and Professor of Moral Philosophy. The teacher at the University was Thomasius, a man versed in the history of ancient philosophy, a professor who taught his pupils to respect the time-honoured Aristotle and the scholastics, as well as the new-fashioned system of Descartes. But the young Leibnitz, who even at the age of fifteen was a "learned scholar and self-taught thinker," hesitated to accept unconditionally the old master's teaching and deliberated with himself "whether to adhere to the doctrine of Substantial Forms, or declare in favour of that of Mechanism." The latter doctrine won, and before his boyhood was hardly completed, he began the career that made him the most extensive thinker and writer in Europe.

He studied Mathematics at Jena, and Law at Altdorf, where he took the degree of LL.D., when only twenty years of age. He had no inclination for becoming a professor, but sought intercourse with scholars and statesmen. In his travels in Germany he was received with favour by Electors and Counsellors, and composed various theological and political treatises. He aimed at a consolidation in one body of Protestants and Catholies; his idea was, a universal religion, a universal empire, and a philosophical language.

After visits to Paris and London, he became Librarian at Hanover, in 1676. He had visited Spinoza in Holland, had held correspondence with Huyghens and Newton, and had laid before Louis XIV. a plan for the conquest of Egypt. At Hanover, in 1684, he published his Integral Calculus, "the continuity of nature," and as a result of conversations with the Queen Sophia Charlotte, his essay on "The Goodness of God,

Liberty of Man, and Origin of Evil."

In 1704 was penned his review of Locke's "Essay on the Understanding," in which he maintained that the ideas of substance, identity, truth and goodness exist potentially in the mind. In 1712 he removed to Vienna, was elevated to the ranks of the nobility, made Councillor, and consulted by Peter the Great. He wrote for Prince Eugene, the summary of his philosophy under the title of "Monadology" at this time, and originated the founding of academies of science at Berlin and St. Petersburg. Shortly after this he returned to Hanover, where he died, in 1716.

As a child he had been exceedingly precocious, much given to reading the Latin Classics and exercising his speculative and inventive faculties; as a man he was "extremely conceited," an incessant worker, fond of adulation and the comforts of life. He was never married, and during his bachelor life acquired many habits, which are in strange contrast with those of the methodical, exercise-taking Kant. It was a common occurrence for Leibnitz to remain at his work for several days, sleeping and eating as nature required in his chair—so absorbed did he become. He even acquired the habit of eating his heartiest meal just before retiring, that he might save time, saying that "digestion went on as well during sleep as at any time, and didn't interfere with his thinking." As to exercise, he took so little, that during his later years he suffered greatly in his lower limbs, and used often to lament they were not as sound as his head and stomach.

HIS WORKS. The ambition of Leibnitz was to conciliate all things. "I have been struck," he said, "with the idea of a new system, for I believe I see the interior of things in a new light. This system would reconcile Plato with Democritus, Aristotle with Descartes, the Scholastics with the moderns, theology and morals with reason. I would take the best from all, and push the matter further than it has yet gone."

According to Leibnitz, nature and spirit correspond, the laws of thought are those of things. If we would comprehend the first principles of nature, let us study our reason. Reason has two great laws which it applies as soon as experience furnishes occasion. The first is the axiom of contradiction; that at the same time and under the same conditions, a thing can exist and yet not exist; the second is the axiom of sufficient reason: nothing can exist without a reason which suffices to explain it.

The axiom of contradiction corresponds to the *possible*, that of the sufficient reason to the *actual*. But it is not enough that a thing exists actually, as established by the axiom of contradiction; there must still be a sufficient reason why it has passed into existence and is realized in creation. This reason, according to the "Théodicée" of Leibnitz, is order, suitableness, and harmony, the universal well-being. In the inind of man the principle ought to be established that all is good, that all is beautiful, that all is regular, and in order; that nothing exists which ought not to be.

Experience without reason only furnishes the connections or associations of images as those which serve to guide animals. Man, alone, according to Leibnitz, is acquainted with the chain of reasoning. This superior faculty bears the same name as its object, reason. And what is there innate in this faculty? Itself. This theory sufficed to overthrow that of the sensualists defended by Locke, who had affirmed, "Nihil est in intellectu quod non prius fuerit in sensu," while Leibnitz added "Nisi ipse intellectus."

In possession of the great laws of the intelligence, the next step is to proceed to the study of things themselves, to go from the ideal order to the real order, which is only an expression according to Leibnitz, who affirmed that in nature, reason found only itself.

Space, he argued, is not a real existence, but a pure relation of co-existence. To attribute to it a proper reality is to admit, as Descartes has seemed to do, the passivity of substances and to introduce into the universe inertia and torpor. Leibnitz had barely escaped being seduced by this system earlier in life. But he felt its insufficiency, and to the pantheism of Spinoza, to the occasional causes of Malebranche so nearly related to Spinoza, to the purely mechanical theories of Descartes, he opposed the activity of the individual substance. To be, is to act. Creative act did not produce simple phenomena which would be then only the modes of God, but it deposited in beings a force or intimate virtue, from which could proceed naturally their actions as well as their passions. If mechanism accounts for visible nature by the laws of motion, it does not give the invisible reason of these laws nor the reason of motion, and consequently does not explain itself. In a word the surface of things is explained by mechanism, while the depths of things can only be explained by dynamism.

"The theodoxy of Spinoza," says Baring-Gould, "had started from a substance, one, infinite, the base of the world, impersonal and undetermined. Leibniz opposed to this the hypothesis of a living primal force. Matter, which Anaxagoras and Plato among the ancients, and Descartes and Spinoza among the moderns, had regarded as inert, became in the system of Leibnitz the sensible revelation of motion; life and force. Spirit he supposed to be, not thought only, but a virtuality, an essence endowed with original ideas, which are not innate in man under an adequate form, but exist virtualiter, potentialiter. Spinoza deduced all things from the sole substance, and was consequently obliged to sacrifice individualities to the unique general Being. Leibnitz, on the contrary, considered all things as the reunion of an infinite number of essences or independent forces, active, living, distinct, indivisible, imperishable, without form or extension, to which he gave the name of monads, that they might not be confounded with the atoms of Democritus and Epicurus. Each of these monads differ from the other, not in kind, but in degree. Each is a little complete being in itself, and reflects, as in a mirror, the entire universe or God. The world is an assemblage of these monads. Each monad, by nature of the independent inherent force in it, is without natural relationship to the other monads. Their bond of union is a preestablished harmony, as Leibnitz called it, in virtue of which, without destroying the independence of these primitive forces, he considered them to be so constituted that their mutual development in no way clashed, but on the contrary worked towards a harmonious end. established harmony is due to God, the author of these living monads."

For pure geometry he substituted dynamics or geometry in action.

CHRONOLOGY.

A.D. Age	A.D. Age
1616 Born at Leipzig.	1684 "Règles du Calcul Différen-
1661 Entered University at Leipzig 15	
1664 Received degree of MA.;	1692 Took part in project to unite
"De Principio Individua-	Protestants and Catholics . 46
tionis" 18	1693 "Codex Juris Gentium Diplo-
1665 Received degree of LL.D. at	maticus'' 47
Altdorf 19	1702 President of Academy of
1666 "Tractatus de Arte Combina-	Sciences, Berlin 56
toria" 20	
1669 Councillor of State 23	vicensium"61
1672-74 Visited Paris and Lon-	1710 "Théodicée" 64
don 26-28	1711 Aulic Councillor under Charles
1676 Librarian to Duke of Bruns-	VI
wick-Lüneburg ; again visit-	1714 Visited England 68
ed London 30	



GEORGE BERKELEY.

A.D. 1685-1753.

IDEALISM.

Amongst the evidences of a revival in recent years of interest in metaphysical studies, one of the most noteworthy was the appearance in 1871 of a new edition of the works of Berkeley, founder of the modern philosophical system known as Idealism. It is accompanied by a new biography, compiled by the editor, Professor Fraser of Edinburgh University, with such illustrative documents, letters, &c., as were discoverable by eager and diligent research. It was in the same year that Professor Jowett gave to the world his translation of the complete works of Plato, also an Idealist, but in a sense different from the Berkleian.

The Idealist system of Berkeley was an offshoot of the system of Locke; and in its construction the author was impelled by a distinctly religious motive. Seeing the consequences that logically flow from

Locke's doctrine, it was his aim, while accepting this doctrine as a starting-point, to strike out a new path by which to arrive at a new conclusion, and once for all cut the ground from under the feet of the Freethinker, the Atheist, and the Materialist. It is not too much to say that Berkeley, Butler, and Wesley who were for half a century contemporaries, were essentially fellow-workers towards the same end, though on different levels. That men might believe in God, and lead holy and devout lives—for this it was that Wesley fervently preached, and Butler calmly reasoned, and Berkeley philosophized.

Hardly anything is known about Berkeley's family, but it was probably of English origin. His birthplace, usually said to be Kilcrin, was more likely Dyser't-on-the-Nore, near Thomastown, in Kilkenny. The district is one of the loveliest in Ireland. He was born on the 12th of March, 1685, a few weeks after the death of Charles II. Milton had died eleven years before; Spinoza was eight years old; Butler was born seven, and Voltaire nine years later. Among the great contemporaries of Berkeley were Johnson, Pope, Addison, Swift, Newton, and Hume. Berkeley's father was an officer of the Customs, whose family consisted of two sons and one daughter.

At the age of eleven he was sent to the famous Kilkenny School, called the "Eton of Ireland," and although so young he took his place at once in one of the higher classes. Here he studied about four years, and in March, 1700, he entered Trinity College, Dublin. Scholastic logic and metaphysics still formed part of its curriculum; but the tide of reaction against them was already pressing in, and the names and works of Descartes, Malebranche, Locke, and Newton, were becoming familiar. Of Berkeley's mental life during this period a deeply interesting record is presented to us in his Common-place, or Note Book, which has been brought to light by Professor Fraser. It shows that he took an eager interest in the new philosophy and the new science. But the special feature of the period was the dawning upon his mind of some new principle in philosophy, the perception of which filled him with a rapture of delight and hope, such as accompanies only the births of genius. Absorbed in his vision, he appeared to observers strange and eccentric. And as the plodders did not, could not, understand him, they laughed. Although only twenty-two he made a beginning as author anonymously, in 1707, with two tracts on arithmetic and mathematics. He had taken in 1704 his degree of B.A.; and in 1707 he took that of M.A., and was chosen to a fellowship in his college. Two years later he was ordained de con.

The same year (1709) appeared the first of his great works, the "Essay towards a New Theory of Vision." It was an application of his new principle without any announcement of the principle itself. It set forth one of the three philosophical discoveries which the world owes to him,

the doctrine of the acquired perceptions of sight. It enforced attention; and a second edition was called for within a year.

In his next work, the "Treatise concerning the Principles of Human Knowledge" (1710), he announced and expounded the new principle. The book was a systematic assault on scholastic abstractions; and especially a protest against the philosophical doctrine respecting matter. as the invisible substratum of the objects of sense. It was misunderstood, misrepresented, and ridiculed. Johnson's impromptu refutation of Berkeley's theory is well known. But although Berkeley declared that he agreed with the vulgar in belief of the existence of what is seen, felt, tasted, and touched, yet as he identified "ideas" with objects, and asserted that objects cannot exist without a perceiving mind, his agreement with the vulgar lies within exceedingly narrow limits. He set the highest value on that part of his theory which asserted that ideas [a term used by him in the sense both of sensations and images] have a permanent existence in the mind of God; for this seemed to him to furnish an irrefutable argument for theism. The remorseless logic of fact has not only consigned his favourite argument to total neglect, but has shown that his philosophy, which was to be a new bulwark to the Christian faith, became instead a new stepping-stone towards the dismal shore of universal scepticism. Berkeley's challenge remained unanswered. His argument, says Coleridge, if his premise be granted, is a chain of adamant. His conclusion is nevertheless unbelievable.

In his "Discourse of Passive Obedience" (1711) Berkeley appears as the advocate of high Tory principles, pleading not indeed for the divine right of kings, but for slavish submission to governments, whatever they may be. Sacheverell's famous sermons had been preached two years before; and in the excitement of the time suspicion fell on Berkeley, and threatened to hinder his promotion in the Church.

He was tutor in Trinity College, nominally from 1712, but actually from 1707 till 1724. In 1712 he visited England and stayed several months. He paid a second visit the next year, and was presented at court by Swift. During this visit he was introduced to Pope, Addison, Steele, Samuel Clarke, and Bishop Atterbury. He contributed to Steele's "Guardian," and perhaps met Anthony Collins, who had just published his "Discourse on Freethinking."

In 1713 Berkeley published a popular exposition of his system in the "Dialogues between Hylas and Philonous," in which, says Professor Fraser, occur "the most pleasing passages of fancy to be found in English metaphysical literature." In the following year he went abroad as chaplain to Lord Peterborough; but the philosopher and the soldier saw little of each other. In 1715 he again travelled as tutor to a gentleman's son, and was absent till 1720. He kept a diary of his Italian travels, full of vivid details. During this absence he contributed to the

French Academy his essay, "De Motu," an account of the most essential feature of his philosophy, his spiritual theory of the nature of causation. In 1721, in the midst of the agitation and social havoe caused by the bursting of the South Sea Bubble, he published an "Essay towards preventing the Ruin of Great Britain." It was the cry of a prophet, a call to repentance, and to individual reformation of spirit and of life. About the same time he returned to Ireland, and was chosen preacher to the University. In 1722 he was appointed Dean of Dromore, and also Hebrew Lecturer and Senior Proctor. Some months later his worldly wealth was increased by the bequest to him by Swift's "Vanessa" of half her fortune. He had only once met her.

In 1724 the rich deanery of Derry was given to him. But he had just conceived a new religious project, and for its sake was more anxious to resign his deanery than most men would be to get it. The project was of a mission to the North American Indians and a college in the Summer Islands (Bermudas), for the training of missionaries. Wealthy friends aided him, and the Government promised a grant of 20,000l. In 1728, having completed his preparations and taken a wife, he sailed for Rhode Island. Here he spent three years, took a farm, studied, wrote, and enjoyed social intercourse, receiving the while the income of his deanery. In 1731, all hope of government aid being extinguished, he relinquished the scheme and returned home. Resolved to bear himself the loss attending his enterprise, he returned all subscriptions to the donors.

In his "Alciphron, or the Minute Philosopher" (1703), Berkeley showed himself second only to Plato as a writer of philosophical dialogue. This work was directed against the Freethinkers; but except as the production of so eminent a man, says J. S. Mill, it would have little claim to serious attention. Berkeley was promoted to the see of Clovne in 1734, and there he spent eighteen years, suffering from ill-health, but happy in his family and among his books, and faithfully discharging the duties of his office. His next work was "The Analyst," addressed to infidel mathematicians. He vigorously exposed defects and shortcomings in the current doctrines of the higher mathematics, which were not fully remedied till our own time, by the labours of Professor de Morgan. Berkeley's later writings were "The Querist," dealing with social and economical subjects; "Siris," in which he sets forth the medicinal virtues of tar-water, passing at the close into the highest region of metaphysical speculation; two letters to the Roman Catholics of his diocese and their clergy; "Maxims concerning Toleration," and "Further Thoughts on Tar-Water." A heavy blow fell on him in 1751, in the death of his second son, too deeply loved, he says. Then, wishing to remove to Oxford for the sake of his son George, who was studying there, he petitioned the king for leave to resign his see. George II. replied that he might live where he liked, but that he should die a bishop in spite of

himself. In the autumn of 1752 he removed to Oxford. He was very feeble at the time; and on the 14th of January, 1753, just six months after Butler's death, he died suddenly and quietly in the midst of his family. His remains were interred in Christ Church, and a monument was erected to his memory.

As a philosopher, Berkeley is pronounced by J. S. Mill to be of all-metaphysicians the one of greatest philosophic genius; adding that of him alone it can be said that we owe to him three first-rate philosophical discoveries, each sufficient to have effected a revolution in psychology, and that these discoveries made him the turning-point of higher philosophy in modern times. "Psychology and Metaphysics before and after Berkeley differ almost like ancient and modern history or ancient and modern physics."

As a man, Berkeley has been called "one of the darlings of the human race." A character of such purity, simplicity, generosity, so free from covetousness, ill-temper, pride, and self-seeking, is rare in any age. In all societies he won his way to men's hearts; they could not choose but admire and love and zealously serve him. Even the savage, treacherous Swift was uniformly kind and faithful to him.

Berkeley had three sons and one daughter; but his family became extinct early in the present century.

CHRONOLOGY.

A D.		Age	A.D. Age
1684	Born at Kilerin.		1724 Made Dean of Derry 40
1707	Fellow of Trinity College,		1725 "A Proposal for Converting
	Dublin	23	American Indians," &c 41
1709	"Theory of Vision"	25	1728-31 Visited America 44-47
	"Principles of Human Know-		
	ledge"	26	
1713	"Dialogues between Hylas		
	and Philonous"		



DAVID HUME.

A D. 1711-1776. SCEPTICISM.

The late Lord Lytton in one of his novels points out that what a man is personally and in his private relations is of little importance to the world in comparison with what he appears to be in his published works. Personal character and influence act within very narrow limits both of place and time; while books, if they have a real life and power in them, move in the large circle of the world, and successive generations of men may own their sovereignty. But on the other hand it is not to be denied that in many cases the personal life and character of an author will have much to do with the credit and influence of his works. A good book which is the outcome of a noble life, and is known to be so, has for that very reason a power beyond its own.

In the case of Hume, whatever may be the importance of some of his

writings,-and it is beyond controversy great-it is impossible to assert that they were the outcome of a noble life. The impression left on the mind by his biography is hardly less than painful; so conspicuous by their absence are the higher qualities which command admiration and There is no lofty, inspiring aim, no splendid renunciation and effacement of self, no glow of warm sympathy with the large interests, the joys and woes and aspirations of his race. The great poets of the world are dumb to him; he is blind to the glories of art; he has no music in his soul. Equally insensible to the charm of landscape beauty, he goes up the Rhine and down the Danube, and all the magnificence of scenery is nothing to him. The devotion of saints, the heroism of prophets and martyrs are facts beyond his range. Even the one passage of his early life in which something like enthusiasm appears, in the passion for literature, was brief; for the passion soon became a determination to "push his fortune" by means of literature. And by this determination he stood. "What shall I do to be for ever known?" He deliberately blamed all enthusiasms. There is no evidence that he was ever in love. In the place of these things we find unblemished respectability, charming good nature and sociability, keen worldly prudence, frugality, and pecuniary independence. Large vanity was in him, hunger for praise and for success, irritation at literary disappointments, delight when he breathed the incense of adulation.

Hume's great distinction as a philosopher is this,—that by his acute investigation of the nature of man, from the point of view of Locke's system, he gave to philosophical scepticism a strength and logical consistency which it never had before. Locke had taught that all our knowledge was derived from experience; Berkeley had followed and proved that we have no experience except of "ideas;" and that therefore matter is a figment; and Hume went further still, having, as some one has said, courage to follow truth to the very bottom of her well, and showed that mind is a figment too. Both Locke and Berkeley foresaw this possible issue, but shrank back from the abyss. "Hume," says G. H. Lewes, "deserves the gratitude of mankind for having brought philosophy to this pass. Mankind, however, has paid him with execration." Perhaps the most memorable result of Hume's remorseless scepticism was that it awakened Kant to a sense of the necessity of fresh investigation, more searching and more profound, and thus became the occasion of the birth of the Critical Philosophy.

Hume was born at Edinburgh, on the 26th of April, 1711. His father's house and estate, Ninewells, were in Berwickshire. The family was a branch of that of Lord Home or Hume, who figured in the French wars of the fifteenth century. David was the youngest of three children, and these were brought up carefully by the mother, the father having died in David's infancy. David, who inherited from his mother his intellectual

acuteness, was sent at an early age to study at Edinburgh, and was destined for the profession of the law. But the taste for literature and philosophy was too strong in him to admit of contenting himself with any other pursuit. He therefore remained at home studying closely. After a few years he made trial of business in a merchant's office at Bristol, but soon gave it up. He next spent three years in France, chiefly at La Flêche, and here he composed his first work, the "Treatise of Human Nature," the materials for which he had been long storing up. In later life he gravely regretted that he had undertaken so vast a task at so early an age, and had in some passages spoken too dogmatically. It was published in 1739 and 1740. It was less successful in the publisher's sense than Hume expected, and in his old age he spoke of its failure with exaggeration, as a falling "dead-born from the press." Gradually he forsook the path of philosophy and applied himself to themes which appeared to promise better remuneration of the kind he cared for. In 1741 and 1742 appeared two volumes of "Essays," dealing with Morals and Politics; and in these he showed so great a capacity for political speculation, and ran so far ahead of received opinions, that he has been called the father of the liberal and rational policy. In literary style the Essays far surpassed the Treatise, and they met with immediate recognition. In 1745, after a fruitless attempt on the part of his friends to get him a professorship of Ethics at Edinburgh, he accepted for a large salary the post of companion or quasi-keeper to the weak-minded young Marquis of Annandale. He bore the infliction for a year, and then escaped from it.

In 1746 he became secretary to General St. Clair in the expedition intended for Canada, but diverted to France. He also attended St. Clair on his mission to Turin, both as secretary and aide-de-camp. his absence his "Philosophical Essays concerning the Human Understanding," a popular recast of the Treatise with some important additions, were published. After his return to Loudon in 1749, he heard of his mother's death, which moved him to a greater show of tenderness than any other event of his life. During the next two years he wrote, at Ninewells, his "Inquiry concerning the Principles of Morals," his "Political Discourses" (the second series of "Essays"), and his "Dialogues on Natural Religion." The last was not published till after his death; but the "Inquiry" and the "Discourses" appeared at once, the latter winning a great success. In these Discourses the principles of political economy were expounded a quarter of a century before the appearance of the "Wealth of Nations," whose author was one of Hume's intimate friends. About this time Hume settled at Edinburgh, his sister keeping house for him. In 1752 he was elected librarian to the Faculty of Advocates, a post which gave him access to a large library, and thus encouraged him in his next undertaking, a "History of England." The

first volume, containing the reigns of the first two Stuarts, appeared in 1754, and excited the wrath of all parties alike. The second volume (1756) was well received, but the next two (1759), treating of the House of Tudor, gave general offence as the first had done. In 1757 Hume published the "Natural History of Religion," which was violently assailed in a pamphlet supposed to be written by Dr. Hurd, but pretty certainly the work of Warburton. A veil of mystery was purposely thrown over its authorship. The "History of England" was completed by the publication of the earlier portions in 1761. By this work Hume took rank as the first eminent historian in Great Britain; the first endowed with the habits of a philosophical inquirer and master of a fine literary style. Of style he was far more careful than of accuracy. time spent in the production of the History was too short to allow of nearly adequate original research. Moreover, a strong partisan spirit inspired the narrative, and in process of revision this fault was designedly exaggerated, so that, as has been said, all the lights of the book are Tory and all the shades Whig. This may well surprise the readers of Hume's political writings, in which his doctrines are liberal, almost democratic. The History long held its ground as the chief authority on the subject.

In 1763 Hume accompanied Lord Hertford on his embassy to France, and became secretary to the embassy, with a salary of 1000l. a year. At Paris, where his reputation as philosopher stood very high, he was petted and lionized by "society," as Voltaire was to be some years later. After Lord Hertford's departure, Hume remained as chargé d'affaires. returning to England in 1767. At this time occurred the episode of his friendly intervention on behalf of Rousseau, resulting in a quarrel, in consequence of the insane hallucinations of the latter and his charges of treachery against Hume. From 1766 to 1769 Hume held the office of Under-Secretary of State, and then finally retired to Edinburgh, where he built a house and proposed to reside for the rest of his life. Hume's success was the beginning of the brilliant period of literary culture and society at Edinburgh, and his house became the centre of attraction. In 1775 began the illness which was to prove fatal. Distinctly aware of this, he wrote "My Own Life," a simple, cheery, self-laudatory record. He died at Edinburgh on the 25th of August, 1776, and his remains were interred in an old burial ground on the Calton Hill.

Hume's genius for philosophical inquiry has been pronounced of the highest order, bold, penetrating, and original. Thorough-going as his scepticism was, in theology as well as in philosophy, his writings contain much of a positive and dogmatic kind. Observation of facts is the basis of all his teachings; and he anticipated some of the advanced speculations of the present day. His influence has told upon many of the writers who have since influenced the world, and it is far from being exhausted. One great merit he has as a writer, distinct from the higher

qualifications,—that he always treats his subject with gravity and decorum, never employing ribaldry, seldom even wit in support of his views. Among his closest friends were men of known piety and some of the religious leaders of the day. But Johnson, with characteristic bluntness, refused to meet the man whose scepticism extended to the total rejection of the Christian religion, the denial of miracles, of divine Providence, and of the immortality of the soul.

A new edition of Hume's philosophical works, by Professors Green and Grose, with Introductions and Notes, appeared a few years ago. A brief but clear account of his life and his philosophy, by Professor Huxley, forms one volume of the series of "English Men of Letters" (1879).

CHRONOLOGY.

A.D. Age	A.D. Age
1711 Born at Edinburgh.	vocates : "Political Dis-
1734-37 Visited France 23-26	courses" 41
1737 Went to London 26	1754-61 "History of England" 43-50
1738 "Treatise on Human Nature" 27	1757 "Natural History of Religion" 46
1742-52 "Essays" 31-41	1763 Secretary of embassy to Paris 52
1747 Visited Vienna and Turin 36	1766 Returned to Edinburgh 55
1751 "Inquiry concerning the Prin-	
	1776 Died in Edinburgh 65
1752 Librarian to Enculty of Ad-	



KANT.A.D. 1724-1804.
INTUITION.

EMMANUEL KANT, the celebrated philosopher, founder of the modern German school, was born in Kænigsberg, in 1724. His father was of Scotch descent, extremely poor and exceedingly honest; his mother was exceedingly pious, and with his early instruction, which was entirely religious, Kant acquired that reverence and love of sincerity which influenced his character and writings in later life. He was educated at the expense of his uncle, pursuing the study of mathematics with great delight, while history and poetry remained comparatively neglected. The most brilliant oratory was considered by him to be merely "delirious prose," and he devoted all his energies to the study of the sciences, developing in himself a kind of dry imagination, a "spirit of abstraction" which characterizes all his works.

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After receiving the MA. degree at Kænigsberg, and passing some time as a private tutor, at the age of thirty-one he was attached to the University as a private teacher. In 1770 he obtained the chair of Mathematics, but soon exchanged it for that of Metaphysics, which he occupied till 1793, eleven years before his death. During all his professorship he lived the most simple and exact life possible, evolving side by side with his philosophical notions the most extraordinary ideas as to daily living.

His household consisted of an old man-servant and a cook. Summer and winter he arose at five minutes before five, and at five o'clock precisely was seated at his breakfast-table, where he drank two cups of tea, and smoked a pipe, while laying out his day's work. At seven he went to give his lecture at the college; returned and worked until a quarter before one o'clock, which was his dinner hour. He always took a glass of wine before dinner, "to open the appetite," and always had an invited guest; but if by chance he saw himself likely to dine alone, the servant was obliged to go into the street, and ask in some passer-by. During the meal he talked on all subjects, philosophy excepted, and tenaciously held to his pet theories on electricity, &c.

After the dinner, always long, came the daily promenade, when at half-past three, as regularly as the church clock struck, he emerged from his house and entered the small street, which has since been called the "Philosopher's Alley," there to walk back and forth eight times, respectfully saluted by the old burghers, and in threatening weather anxiously followed by the faithful servant with an umbrella under his arm. Kant used to give his reasons for this promenade; that he might meditate, and that he might breathe the air through the nose only, holding the mouth closed so that the air might be softened before reaching the lungs, a rule of hygiene which he held to be invaluable in preventing colds and coughs.

On re-entering the house, he read the scientific and political journals till six o'clock, when he commenced work. In order that his thinking should be agreeable and without distraction, he always occupied a certain place, before the window overlooking the Castle at Kænigsberg, and the heat must always be just 14 centigrades, summer and winter. He imagined himself sick if it varied ever so little. He was always much occupied with his health, wore silk stockings attached by cords to his hips, deeming that garters impaired the circulation of the blood, detested beer, in short all the arrangements of his person and living were as complicated as his metaphysical treatises. He went to bed at ten o'clock, terminating the evening with reading, and methodically putting away all ideas likely to prevent or trouble his slumbers. He always slept in a perfectly dark and cold chamber, where the windows were kept closed on principle, summer and winter, in spite of all theories in favour of

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change of air. He knew neither passion, suffering, or unhappiness, except by name; he was simply a thinker and an observer in the world, devoted entirely to study. He died in his eightieth year at Kœnigsberg, where he had spent his entire life, leaving a moderate fortune and a library of 450 volumes.

At the head of Kant's masterpiece, the "Critique of Pure Reason," stands like a dedication the name of Bacon, to whose chief work, the "Novum Organum," it forms an antithesis. "That all our knowledge begins with experience there can be no doubt," says the opening paragraph, "but though all begins with experience, it by no means follows that all arises out of experience." "There exists a knowledge independent of sensuous impressions, a knowledge à priori." "Philosophy," he declares, "stands in need of a science which shall determine the possibility, principles, and extent of human knowledge à priori."

Such a knowledge is given to us by intuition; on this he founds his

metaphysics, the transcendental philosophy.

Space is not a conception derived from outward experience. Space is a necessary representation à priori. Space is the subjective condition of the sensibility and the necessary foundation of external perception. Time is not a conception derived from outward experience. Time is the formal condition à priori of all phenomena whatever; space is the condition of external phenomena alone. Time and space have no empirical reality, but an absolute and transcendental reality. These two elements are all that are pure intuition; all other conceptions appertain more or less to sensibility: motion, for example, unites both these elements and presupposes something movable, a perception besides.

From the two intuitions, the primary elements, we come to consider the four conceptions of the understanding, the secondary elements. Two of these are mathematical, quantity and quality; the other two are

dynamical, for instance, cause and effect, necessity.

By deductions from these transcendental categories is obtained a system of transcendental ideas; the idea of a transcendental doctrine of the soul (psychologie rationalis), a transcendental science of the world (cosmologie rationalis), and a transcendental doctrine of God (theologia transcendentalis).

The soul is substance, a simple unity; its qualities are immateriality, incorruptibility, personality, spirituality, animality, and immortality. The world suggests to us ideas of a beginning, limits, parts, and also liberty (spontaneity), and also necessity. By world we mean the mathematical whole, by nature the dynamical whole. The world has a beginning in time and is limited in space; it is made up of simple parts, a causality of freedom is necessary; there exists a necessary being as its cause.

Of God, termed the Ideal, Plato's idea of the divine mind, two ideas

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are given; the *deist* cognizes the existence of a supreme being by pure reason alone, the *theist* discerns him by analogy with nature; to one he is the cause of the world, to the other he is its author (Ontotheology, Cosmotheology). All cognition begins with intuitions, proceeds from them to conceptions, and ends with ideas.

Reason asks the questions what can I know, what ought I to do, and what may I hope? The legislation of human reason has two objects, Nature and Freedom; the philosophy of nature relates to that which is; that of morals to that which ought to be: thus we have two principal sciences of reason, Mathematics and Ethics.

In a later work, Kant proceeds to build up a system of morality. "He first proves that the concept of duty has an objective character, which is not possessed by any of the concepts of speculative reason. He then maintains that this concept of duty communicates immediately its objectivity to a second concept, that of liberty, which is so closely bound up with the first that they form together an inseparable whole. Duty and liberty become the pivots of man's conscious being; and his life is one of conflict between the impulse of free will to assert its liberty, and the impulse of conscience to insist on duty, as a curb. This conflict must cease; there must be some moral equilibrium between duty and liberty. Therefore there is a future life and a God."

There is nothing really good in this world but a good will. A good will is the absolute scope and end of man. A good will is not estimated by its good effects, but must be good in itself. Temperance, fortitude, &c, aid and strengthen good will, but have no inward worth of their own. Good will has an inward, absolute and necessary principle, this is the moral sense, product of pure reason.

Laws are either hypothetic or categoric: a hypothetic law is one which indicates a means to an end, but a categoric imperative is a law which is absolute. Moral laws are of this kind. Let the maxim on which you act be fit for a law to all mankind. This is Kant's famous rule of life.

CHRONOLOGY.

A D.	Age	A.D.	Age
1724	Born at Königsberg.	1786 "Metaphysische Anfangs-	0
1740	Entered university 16	gründe der Naturwissen-	
1755	Received degree of M.A 31	sclaft"	
1755	" Natural History and Theory	1788 "Critique of Practical Rea-	
	of the Heavens" 31	son ',	64
1770	-94 Prof. Logic and Meta-	1790 "Kritik der Urtheilskraft".	
	physics; "De Mundi Sen-	1793 "Die Religion innerhalb der	
	sibilis atque Intelligibilis	Gränzen der blossen Ver-	
	Forma et Principiis 46-70	nunft"	69
1781	"Critique of Pure Reason". 57	1798 "Anthropologie in pragma-	
1783	" Prolegomena zu einer jeden	tischer Hinsicht"	74
	künftigen Metaphysik". 59	1804 Died at Königsberg	80
1785	"Grundlegung der Metaphy-	88	-
	sik der Sitten ' 61		

BOOK V.

Wistory.

HISTORIANS-ORATORS-CRITICS.

INTRODUCTION.

Every one knows the story, that when Sir Walter Ralegh was writing the "History of the World," in the Tower of London, he overheard two boys quarrelling over the facts of an incident that had happened the day before, and said to himself, "If these two boys cannot agree on an event which occurred almost before their own eyes, how can any one be profited by the narrative which I am writing of events which occurred in ages long past?" Like to this is the story that Sir Robert Walpole, when some one in his old age offered to read to him a volume of history, replied, "Anything but history; I, by my long political experience, know that all history is lying."

The sentiment expressed by these two celebrated men finds a response in many minds, when they are invited to judge of the value of history. It is a natural objection founded on the supposed impossibility of arriving at the truth of past events. And to this has been added in modern times the yet deeper prejudice that the narrative of human affairs, with its complexities, uncertainties, and ambiguities, falls into the shade before the steadfast, immovable, demonstrable march of scientific truth.

To both these objections the answer may be found in the primary sense of the word "History." It means an inquiry, a sifting, a cross-examination of previous events, with the endeavour of eliciting from them their most vital and essential points.

First, even with regard to that more superficial difficulty suggested by the two English statesmen, it may be truly said that the careful history of the complex events of past times is more to be depended upon than the conflicting statements of contemporaries and eye-witnesses,

such as bred in Sir Walter Ralegh and Sir Robert Walpole an incurable suspicion of all history. At the time when events are taking place, rumours, passions, prejudices, combine in obscuring both the facts themselves and the minds by which those facts are received. It is only after years have elapsed that the documents, the letters, the despatches, the rectifications of contradictions, are fully brought to light; and thus the narratives of careful historians are almost always more trustworthy than any single narratives of those who lived at the time. aspect of history that the value of what may be called its antiquarian accessories comes most fully to view. Traditions of personages unknown at the time, but handed on from generation to generation, may in the century afterwards, for the first time, appear above the surface and then become imbedded in the solid substratum of the whole record. documents, state papers, which could not be seen by passing partisans, are revealed at Simancas or the Vatican, or in the Venetian archives, to the careful inquirer; and in this way truth is discovered and falsehood exposed by methods which the aged statesman could not disclose nor the two boys in the street have known. There is an ancient maxim, Quod non est in actis non fuit in factis ("what cannot be proved by legal acts cannot have a place in historic facts"); but it is equally true, Quod est in actis fuit in factis ("what is witnessed in a legal act is the best proof of what has actually occurred in fact"). The story of Edwy's marriage with Elgiva, or of Tracy's shipwreck on the coast of Apulia, long discredited, has been corroborated beyond dispute by finding signatures, under particular circumstances, attached to a charter or a will. Geography also contributes its consolidating testimony. When every living witness has perished, the mountain and the river still remain to bear testimony to the accuracy of some narrative which, without these dumb attestations, would have remained in doubt. There is nothing so permanent, said a distinguished antiquarian scholar, as that which is "writ in water;" a spring, a pool may carry conviction of the identity of a locality and an event when every work of man around it has disappeared.

Secondly, it is in the power of a careful historian by this sifting process to reproduce the events of the time as they would have appeared, not merely to one or two bystanders, but to the general mind of the period. The saying of the Duke of Wellington, that a battle is like a ball, in which no one knows what is going on except in the particular part in which he is engaged, may be true enough at the moment; but it is the privilege of the military historian to make himself present in all the parts of the battle at once, and thus to place the reader in the position not merely of one who is engaged in a particular battalion, but of one who follows battalion from battalion to every part of the field. It is this which makes Macaulay's "History

of England" so pre-eminently attractive. We sometimes hear the complaint brought against it that it cannot be true, because it is as interesting as a romance. Rather we may reverse the complaint, and say, that because it is as interesting as a romance, and because the events of the time in which we live are more interesting than any romance to those who enter into them keenly, therefore the probability is that an history so exciting is true. Where, for example, as in the trial of the seven bishops, the historian has reproduced the whole scene from a collection of innumerable particulars in caricatures, gazettes, private letters, public pleadings, we have a security that the event is placed before us, it may be, perhaps, as it would have appeared to an active partisan, but still to a partisan who took in, as far as was possible, all the streams of excitement with which the atmosphere was at that time pervaded.

Thirdly, it is almost a necessary process of the sifting and critical character of history that the faculty of discrimination, the sense of proportion, so necessary to a right appreciation of all events, should be brought into operation. The fury of party spirit, however much it may be prolonged in ages subsequent to the events which called it forth, is at any rate brought under some kind of control; and characters, like Joan of Arc or Spinoza, which were utterly beyond the reach of the contending factions of the time to discern, assume, as before a divine judgment-seat, something of their true value; and it is in this respect that history assumes one of its noblest attributes, because it tends to keep alive in the human mind that detestation of evil and that admiration of good which form the most secure guarantees of the immortality of the human spirit. When Matthew Paris, the best of early English chroniclers, questioned in his own mind whether it was worth his while to attempt the history of his country, he was consoled by the reflection of the sacred text, "The just shall be had in everlasting remembrance." It is because history keeps the just in everlasting remembrance, separates the just from the unjust, and preserves the balance between the complex shades of all the characters which hover in the interval, that it has become an important element in religion itself. No doubt the principle of religion in the human mind is independent of any external facts, whether of science or history; but the sense of solidity given by history to the conception of those great spiritual qualities which are of the essence of religion, is of itself an almost indispensable aid to the continuance of religion in the heart of man.

Fourthly, the careful and impartial investigation of facts, so far from reducing history to a merely prosaic description or calendar of passing events, brings it at once within the reach and demands the assistance of the highest exercise of imagination. It was not without reason that the ancients represented Clio, the genius of history, to be the first of the Muses. In many branches of theology and of philosophy the first

requirement is to perceive likenesses in the midst of differences; but in history almost the first requirement is to be able to see unlikenesses in the midst of similarities. Nothing is more difficult than to form an adequate conception of the vast differences which exist between our own epoch and those which have gone before, and it is in the reproduction of these differences in all their vividness that the imaginative quality of the historian is most constantly demanded. No merely contemporaneous records, unless summed up by the calm investigation and vivifying imagination of later times, can give an insight into the dark, perhaps inscrutable problem of the laws by which the course of human events is regulated. The petty motives, the small contradictions, which occupied the whole horizon of Sir Robert Walpole in his declining age, and of the boys whom Sir Walter Ralegh saw from his prison-window. prevent that wide judgment which alone can take in the various and multiform elements which, from a more distant view, can be perceived. It has been sometimes said that there are only two fields of life in which the idea of an over-ruling Providence is forced upon the mind of man: One is the contemplation of his own individual experiences. That is autobiography; the other is the progress of events on the largest scale. That is the philosophy of history.

Two groups of instances may be given to illustrate this view of historic philosophy. One is the succession of race to race, of religion to religion, of genius to genius, which to the ancient local chronicler was almost impossible, but which to the modern historian has become almost a new revelation, almost a second nature. The earliest glimpse of this truth appears in the Book of Daniel; when empire after empire, each with its successive guardian angel, passes before the mind of the prophet. It reached its full development when in our time complete expression was given to it in Lessing's "Education of the Human Race," or in Hegel's "Philosophy of History." Comparative mythology, comparative religion, the detection of modern elements in ancient history, and of ancient elements in modern history, the general survey of manners, as by Voltaire or Montesquieu, all pertain to this wider investigation of human concerns, and invest it with a philosophic, if not a scientific aspect.

Another group is that which fixes the mind on what may be called the dramatic and tragical aspect of the life of man. It is true that this aspect will strike contemporary beholders, from the constraining power of natural sympathy; but still, in order for such incidents to have their full force, they must be elevated into a region beyond the obscuring influences of local and personal passions. The failure of the Athenian expedition to Syracuse, the murder of Julius Cæsar, the death of Mary Queen of Scots or Charles the First, have an effect on later days such as they could not have produced amidst the disturbing excitements of the moment—that is to say, the appeal to the purely sympathetic, compassionate, and, in the highest sense of the word, philanthropic emotions of the heart, strikes only with full force when the incidents loom through the shadows of the past without entanglement in the small and trivial particularities of the moment. These critical and catastrophic incidents give to history a richness from which the milk of human kindness and the fire of human passion will always be drawn in unfailing abundance. It is thus that the historical books of the Old Testament were in former times included amongst the books of the Prophets. It is thus that when historians have been not merely chroniclers, but men of genius, their histories rise to the rank of finished works of art. The collision of Asia with Europe, as described by Herodotus, is an epic. The vicissitudes of the Peloponnesian war, as presented by Thucydides, the lights and shadows of the reign of Tiberius and his successors, as presented by Tacitus, are tragedies. The narrative of the decline and fall of the Roman Empire, by Gibbon, of the English Revolution, by Macaulay, where every chapter, every sentence, almost every word, are written with a view to the whole, might stand in the Palace of Art side by side with the Parthenon or the Paradise Lost. The romances of Walter Scott, with all their inaccuracies, are by reason of the marvellous insight of their author into the characteristics of former times, ingredients of the best kind of historical instruction. "Where have you learned the history of England?" it was asked of the greatest statesman of the last century. As Ralegh and Walpole began, so Lord Chatham's reply shall end these words-" In the Plays of Shakspeare."

A. P. STANLEY.



HERODOTUS.

484-406* B.C.

THE FATHER OF HISTORY.

The earliest of Greek historians, in the proper sense of the term, was a native of Halicarnassus, a Doric colony in Caria, which, at the time of his birth, was governed by Artemisia, a vassal queen of the great king of Persia. His father was named Lyxes; his mother, Dryo, was sister of Panyasis, one of the revivers of epic poetry, and the author of an "Hereacleas," which was highly esteemed by the ancients. It is supposed that the poet superintended the education of his nephew, and inspired him with that love of the beautiful and the true, that desire to know and to see, which is the essential quality of a good historian. Probably Herodotus commenced, in early life, that series of visits to distant lands in the course of which he amassed those precious materials that were afterwards so artistically worked up in his immortal history.

Nothing positive is recorded, however, of the studies which occupied his early years, or of the circumstances which favoured the development of his genius. When he was about thirty years of age a rebellion broke out at Halicarnassus. Panyasis was put to death by Lygdamis, grandson of Artemisia, and Herodotus was compelled to flee to Samos, which became his second country. There he found devoted and powerful allies, who assisted him in freeing his compatriots from the yoke of Lygdamis; but after he had satisfied his vengeance, he experienced so many disappointments, that he quitted Greece Proper, and fixed his residence at Thurii, near the ancient Sybaris, in Lucania, where he spent the remainder of his days. Several ancient authors, indeed, call him "the Thurian," on account of his prolonged residence in that city.

The passion to know, to see, and to relate, appears to have taken possession of the mind of Herodotus in his youthful days. First of all he visited Egypt, and ascended the Nile as far as Elephantis, and passed through Libra, Phœnicia, Babylon, and probably Persia. travelled in Macedonia, Thrace, and Scythia, beyond the Danube and the Borysthenes. He penetrated to the extremity of the Pontus Euxinus. and sojourned for some time in every place which contained anything likely to gratify his insatiable curiosity. It is needless to say that if the great historian visited the countries of the East, the Greek cities of Asia, and the northern extremities of the Hellenic world, he did not neglect to make himself acquainted thoroughly, and in detail, with all the localities of European Greece-with the cities, temples, and battle-fields of the continent and of the isles. Tradition has it that on the conclusion of these voyages he placed in order the information he had acquired, and that when he had completed this great work he read it to the Greeks who were assembled for the Olympian Games. His auditors were so charmed with the recital that they gave the name of one of the Nine Muses to each of the nine books into which his history is divided. It is added that Thucydides, then fifteen years of age, who was present at this reading, could not help shedding tears of admiration, and that Herodotus, noticing his tears, predicted for the young man a brilliant future. Criticism has proved this pretty story to be a mere invention; but another statement, which carries with it a greater appearance of truth, is that when thirty-eight years old Herodotus went to Athens on the occasion of the grand Panathenian festivals, and there read in public fragments of his work, still incomplete, but certain portions of which were already in the state in which they have been handed down to us. The audience received the work with enthusiastic applause, and awarded to the incomparable narrator a prize of ten talents, besides bestowing upon him by acclamation the title of "Father of History."

Up to that period the narration of past events had been undertaken only by the logographers, or chroniclers, who merely described what had

occurred in their own or in foreign countries, people by people, and town by town, without any connection. Herodotus made an immense advance in historical composition, by giving unity to a multitude of apparently disconnected occurrences which had taken place in Europe and in Asia. The link connecting the whole he sought for and found, not like the more advanced of the chroniclers, in the traditional series of genealogies, but in an idea—the idea, as profound as it is true, as dramatic as it is popular, of the old quarrel between the East and the West.

Herodotus raised prose narrative to the height of poetry. Ancients and moderns have alike been struck, in various points of view, by the analogy between the work of Homer and that of the Father of History. Homer sang; Herodotus wrote; but both were animated with the same inspiration, with the same thought, at once national and poetic, for they both addressed themselves to Greece in order to glorify her in the past, to delight and to instruct her people.

The veracity of Herodotus has been sometimes questioned, even by the ancients, but the researches of modern travellers, and the discoveries of science, show that his detractors were not unfrequently in the wrong. As to his style, the most able critics of antiquity proclaim its perfection, not because it is entirely free from irregularites of construction, but because the phraseology is always simple, clear, harmonious, and brilliant, displaying all those qualities which are most calculated to captivate the mind. The author used the Ionian dialect in the composition of his History, which comprises the most remarkable occurrences within a period of 240 years, from the reign of Cyrus, the first king of Persia, to that of Xerxes, when the historian was living.

That which charms the readers of Herodotus is, as a foreign critic has justly observed, that childlike simplicity of heart which is ever the companion of an incorruptible love of truth, and that happy and winning style which cannot be attained by any art or pathetic excitement, and is found only where manners are true to nature; for while other pleasing discourses of men roll along like torrents, and noisily hurry through their short existence, the silver stream of his words flows on without concern, sure of its immortal source, everywhere pure and transparent, whether it be shallow or deep; and the fear of ridicule, which sways the whole world, affects not the sublime simplicity of his mind.

CHRONOLOGY.

465 456 450	Herodotus born. Leaves Halicarnassus Reads part of his History at Olympia In Egypt	28 34	B.C. 444 With Samians overthrows Tyrant of Halicarnassus. 443 Goes to Thurii 431 At Athens 498 Still writing his History.	41 53
$\frac{450}{446}$	In Egypt	34	408 Still writing his History	76



THUCYDIDES.

471*-402 B.C.

GREATEST GREEK HISTORIAN.

THUCYDIDES was a native of Halimus, a demos of Attica, dependent upon the phyle Leontis. He was related to Cimon, son of Miltiades, the hero of Marathon, and was also allied to the kings of Thrace, Cimon having married one of them—Olorus. The father of Thucydides was likewise named Olorus, and the future historian married, at an early age, a very rich lady of Scapte Hyle, who was the owner of gold mines in that part of Thrace which is opposite to the island of Thasus. Thucydides was educated in philosophy by Anaxagoras, and in eloquence by Antiphon.

It is recorded that when Herodotus read fragments of his History at the Olympian Games (B.C. 456) the applause he elicited aroused the enthusiasm of Thucydides, then fifteen years of age, who at once resolved to follow in the footsteps of the Father of History. As to the authenticity of this story critics are divided in opinion. At all events a long time elapsed before he gave outward proofs of his vocation, for up to the mature age of forty-five Thucydides was known only as one of the most wealthy personages of his day. His enormous riches, indeed, gave rise to all kinds of suspicions, and finally were the cause of his losing the popular favour.

In the eighth year of the Peloponnesian war he was entrusted with a military command in Thrace, and resided at Thasus. At that period Thrace was partly under the dominion of Athens. Amphipolis, besieged by Brasidas, implored the assistance of Thucydides, who, if his political adversaries are to be believed, was so very slow in getting his troops together, that he was unable to prevent the capture of Amphipolis, and only succeeded, with the utmost difficulty, in saving Eion, where he had taken refuge, and whither Brasidas went to besiege him. Thucydides, on the contrary, maintains that his conduct was without reproach; that he sacrificed a considerable part of his private fortune in equipping the troops and hastening the expedition; and that if he were unable to save Amphipolis it was owing to the circumstance that Brasidas, dreading his approach, bribed some of the principal citizens to surrender the place as soon as he knew the Athenian general was encamped near Eion, and this, of course, rendered useless the succour which the latter brought to the besieged city.

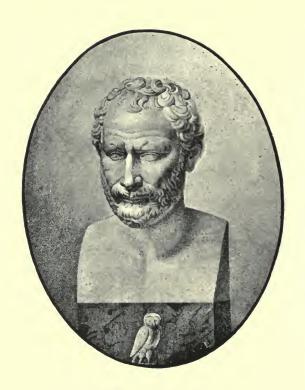
However this may be, the demagogue Cleon accused Thucydides, and easily procured the condemnation of a man whose military capacity appeared doubtful, and whose immense wealth made him an object of suspicion. Thucydides was accordingly sent into banishment.

The majority of his biographers assert that he withdrew to Thasus, and there undertook the composition of his "History of the Peloponnesian War," which has given immortality to his name; but in point of fact Thasus remained for thirteen years longer under the dominion of Athens, and consequently he could not have resided there after his banishment. It is probable that Thucydides passed those thirteen years in the Peloponnesus itself, that is to say in the enemy's country. He says himself that he was thoroughly conversant with the affairs of Lacedamonia, "on account of his exile;" and as a conscientious and veracious historian he must have made it his duty to visit the scene of the events which he intended to narrate. At great expense he collected for his History a mass of documents and authorities which could not have been so complete if they had not been gathered on the spot.

Thucydides passed the latter years of his life at Scapte Hyle, where he possessed extensive domains. It was there that he gave the finishing touch to his book, which he brought down only to the twenty-second year of the Peloponnesian war, from which period it was continued by Theopompus and Xenophon.

Thucydides obtained permission to return to Athens when Thrasibulus restored the democratic government and proclaimed an amnesty. A special decree was, however, necessary for the recall of Thucydides, who, as a descendant of the Pisistratide, was excluded from the operation of the general pardon. The decree was granted at the instance of Oenobius, to whom, on account of this good action, a statue was erected in the Arkopolis. It is far from certain whether Thucydides ever took advantage of this decree and revisited his native land. He came to a tragic end, being assassinated by robbers, most probably at Scapte Hyle.

Thucydides excelled in the two great points which form a just historian, truth and eloquence. The voice of antiquity is unanimous in lauding his veracity; never is the slightest doubt raised in this respect. He was uninfluenced by fear or flattery, and, as he himself says, his only thought in writing was for posterity. It is not the historian, but the history itself, that seems to speak. He wanted no opportunities of knowing the truth, and he does not appear to have misrepresented it; for though some have fancied him to be a little malevolent towards his country, because the usage he had received would have made most men so, yet he has not written anything that discovers such a passion. His manner of writing is coherent, perspicuous, and persuasive, yet close, strong, and pithy. The ancients have spoken of him in the highest terms; and if Herodotus, as his senior, obtained the title of "The Father of History," it is generally admitted that Thucydides is the better historian. Plutarch says that Thueydides "aims always at this, to make his auditor a spectator, and to excite in his reader the same passions with those who were beholders." Then, enumerating some examples, "these things," he says, "are so described, and so evidently set before our eyes, that the mind of the reader is no less affected, than if he had been present in the actions." Confiding in the consciousness of his genius, Thucydides did not fear to predict that his work would go down to the remotest ages as a monument ever profitable to all; and the succeeding ages have confirmed his prophecy. Nothing now remains of the masterpieces of the great painters of his time, and we possess but a few fragments of the works of the illustrious sculptors and architects who were contemporary with him, but the work of Thucydides himself still exists, and can never perish, so that in future ages men will always admire Pericles, Brasidas, Nicias, Alcibiades, Antiphon, and the other great men whose characters he has drawn,



DEMOSTHENES.

385-322 B.C.

GREATEST ORATOR OF THE WORLD.

The greatest of the orators of antiquity was a native of the demos of Paenia near Athens, being the son of an armourer, who had acquired, by the exercise of his calling, a handsome fortune. The father, at his death, entrusted his son to the guardianship of two of his cousins and one of his friends. These guardians, unfaithful to their trust, recklessly squandered nearly the whole of the property. It appears nevertheless that Demosthenes received an excellent education. According to a tradition handed down by Plutarch, and generally adopted, it was while listening to the eloquence of Callistratus, one of the glories of the Athenian bar, that Demosthenes first felt within him a strong desire to become an orator. On coming of age he summoned his guardians before the public tribunals, and pleaded against them with such success that one of them was condemned to pay him ten talents.

This was the first time Demosthenes distinguished himself by his eloquence, but these attempts revealed to him his shortcomings as an orator. He had to contend with serious physical defects, and the means he employed to remedy them have been frequently cited as an example of rare energy and perseverance. He had an impediment in his speech, which for a long time would not suffer him to pronounce the letter R. Moreover he had a weak voice, a short breath, and a very uncouth and ungracious manner; yet by dint of resolution and infinite pains he overcame all these defects. He accustomed himself to climb up steep and craggy places to facilitate his breathing and strengthen his voice; he declaimed with pebbles in his mouth to remedy the imperfection in his speech; he placed a looking-glass before him to correct the awkwardness of his gesture; and he learned of the best actors the proper graces of action and pronunciation, which he thought of so much consequence that he made the whole art of oratory in a manner to consist of them. But whatever stress he laid upon the exterior part of speaking, he was also very careful about the matter and style, forming the latter upon the model of Thucydides, whose history for that purpose he transcribed eight several times. So intent was he upon his study that he would often retire into a cave of the earth, and shave half his head, so that he could not with decency appear abroad till his hair was grown again. He also accustomed himself to harangue on the sea-shore, where the agitation of the waves gave him an idea of the motions in a popular assembly, and served to prepare and fortify him against them. Doubtless it was this energetic application to study which led those who envied his success to say that his orations "smelt of the lamp;" but he could truly retort that his lamp did not shine on the same kind of works as theirs.

An interval of several years elapsed before he reappeared in the tribune, but this time his eloquence achieved the most signal and the most brilliant success. His orations laid the foundation of his reputation, which became so great that in 355 B.c. he was raised to the dignity of a member of the council. He was now about to enter into the most brilliant phase of his career, when he showed himself to be at once an ardent patriot, a consummate statesman, and an irresistible orator.

He exerted all his influence and all his eloquence to thwart the ambitious designs of Philip, King of Macedonia, who, meditating the subjugation of Greece, developed his plan of aggrandizement and made slow but sure progress towards the attainment of his object, by employing, in turn, deceit, power, and corruption. Demosthenes was the first to divine the real character of Philip's policy; he watched its gradual development; and when he thought the opportune moment had arrived, his voice, echoing from the tribune of Athens to every corner of Greece, denounced the ambitious projects of the tyrant. Each new undertaking and every fresh invasion was the signal for a renewed outburst of fervid

eloquence on the part of Demosthenes; and, for more than fifteen years, Philip was unable to take a step in advance without finding himself confronted by this unyielding adversary, whom he feared more than all the fleets and armies of the Athenians. It was against the King of Macedonia that he directed those marvellous orations which are known under the name of the "Philippics," or "Olynthiacs;" and he succeeded at last in forming against that monarch a league, at the head of which were Athens and Thebes.

The orator was himself present at the battle of Chæronea, which placed Greece at the mercy of Philip. On the death of that king the hopes of Demosthenes revived, and at his instigation the Greek cities again formed a league against Macedonia. Alexander repressed this renewed attempt at independence by the destruction of Thebes, but he pardoned Athens and her patriotic orator. In the years which followed these events the city resounded with accusations of venality. Æschines, the representative of the Macedonian party, indirectly brought a charge against Demosthenes by attacking Ctesiphon, who had promoted the decree under which Demosthenes had been crowned for his patriotism. This gave rise to the famous discourse "Of the Crown," Being compelled to justify himself for having given to his country advice which only brought about disasters, the grand orator triumphed over his base adversary by opposing to the materialist doctrine of interest the sublime philosophy of duty, of honour, and of devotion to one's country. He was less successful when the same antipathies obliged him to exile himself from Athens in consequence of a charge—apparently calumnious of having accepted a bribe from the governor of Babylon.

After Alexander's death Demosthenes was restored, his entry into Athens being marked with every demonstration of joy. He became the soul of a new league which was formed among the Greek cities against the Macedonians. The confederacy was broken up, however, by Antipater, and Demosthenes retired to the island of Calauria off the coast of Argolis, where, being still pursued by the satellites of Antipater, he terminated his life by poisoning himself in the Temple of Neptune.

The orations of Demosthenes, of which sixty-one have been preserved, are the most sublime monuments of human eloquence and patriotism.

CHRONOLOGY.

B.C.			B.C.	Age
381	Date of birth.		344 "Philippic II."	. 37
	Admitted to citizenship		343 Ambassador to Peloponnesus.	
364	Accuses his guardians	17	341 "Philippicæ III., IV."	40
	Begins career as statesman .		338 At Chæronea	
355	"In Androtionem," "In Lep-		330 " De Corona "	51
	tinem," "In Zenothemim".	26	324 Prosecuted for receiving bribes	
352	"Philippie I."	29	from Harpalus	57
349	"Olynthiacs I., II., III."	32	322 Died at Calauria	59
346	Ambassador to Philip	35		



CICERO.

106-43 в.с.

GREATEST CRITIC OF ANTIQUITY.

History, says Coleridge, is resolvable into a series of biographies of a few earnest and powerful men. For the large results of human action, which are the proper subject of history, are traceable ultimately, not to the masses that play their noisy, bustling part upon the stage of life, but to a few commanding minds that move them. In some cases this control is exercised by one who takes no part in the actions he has inspired; in others, by men who themselves act with those they lead. To the latter class belongs M. Tullius Cicero, the great Roman orator, perhaps, with one decisive exception, the greatest master in all time of the art of eloquent speech. For more than thirty years he was one of the most conspicuous figures in the political and forensic fields of the Roman republic, holding public office for more than twenty years, and wielding so powerful an

influence that each political party coveted to have him on its side, and felt its strength augmented or impaired by his accession or withdrawal. His lot was cast in the last age of the great Republic; a turbulent time, full of harsh discords and brutal deeds, the outcome and the evidence of conflicting personal ambitions and rivalries, which rushed in to fill the place left almost void of the old pure patriotism. Among his eminent contemporaries were Sylla, Pompey, Cæsar, Cato, Antony, Brutus, and Cassius.

The orator was the eldest son of M. Tullius Cicero and his wife Helvia, both of honourable descent, and was born at the family seat near Arpinum,—the birthplace likewise of Caius Marius—on the 3rd of January, 106 B.C. His father spared no pains to give him the best education then to be had, especially with a view to fitting him for the public service. Neither his health nor his tastes qualified him for a soldier's life; he therefore chose, as the next best path to advancement, the profession of the law. He applied himself to a wide variety of studies under the most eminent teachers, and attended diligently the pleadings in the law-courts and the public speeches of the magistrates. He cultivated poetical composition, and produced several original works and translations; but this was merely boyish play and was soon dropped. He served one campaign in the Social War, under Cn. Pompeius Strabo, father of Pompey the Great, and then he had done with soldiering.

At length, in 81 B.C., when Sylla had overthrown not only the Marian party but the constitution itself, and had assumed the dictatorship, Cicero made his first appearance as a pleader. By his second oration, in defence of Sextus Roscius against a charge of parricide, he won high distinction, and also ran the risk of the dictator's displeasure. He soon after left Rome, and continued his studies at Athens, in Asia Minor, and at Rhodes for two years. After the death of Sylla he returned to Rome, and in 75 entered upon his official career as quæstor in Sicily. By his justice and integrity in this capacity he endeared himself to the people. At the request of the Sicilians he undertook in 70 the impeachment of Verres, who, as prætor in the island, had been guilty of scandalous extortion and cruelty. So gross was the case, and so overwhelming the evidence, that Hortensius, the advocate of Verres, threw up his brief, and the defendant went into exile. Meanwhile, Cicero had been elected ædile. In the year of his prætorship (66) he delivered the great speech (pro lege Manilia), which secured for Pompey the command in the Mithridatic war, and the virtual dictatorship of the East. The object of his highest ambition was attained in 64, when he was chosen one of the consuls for the ensuing year. this election one of his competitors was Catiline; and in order to exclude the latter the senatorial and popular parties joined their forces in supporting Cicero. The orator now allied himself with the aristocratic party, and step by step alienated his former friends. His consulship was

CICERO.

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rendered memorable by his discovery and flustration of the conspiracy of Catiline. The decisive energy which he displayed in this emergency was hardly paralleled on any subsequent occasion. The service which he had rendered was nothing less than the salvation of the republic, for which he was abundantly honoured, and received the title of "father of his country." But his vanity showed itself offensively in continual boasting; and this, with other causes, contributed to the decline of his popularity. Early in 58 proceedings were begun by Clodius, as Cæsar's tool, to bring about the banishment of Cicero. The friends he had trusted in left him to his fate, and by the advice of Cato he quitted Rome and Italy to wait for better times. But his courage failed him, and he poured forth unmanly lamentations. Rome, with its Senate-house and its Forum, was his world.

"Hence banished is banished from the world, And world's exile is death."

A bill, however, was passed the next year for his recall; and his return along the Appian Way was a kind of triumph. Liberal compensation was awarded to him for the loss of his property and the destruction of his houses. He now confined himself mostly to professional pursuits, and avoided entangling himself in political affairs. In 53 he was admitted to the College of Augurs, and the next year he reluctantly accepted the post of governor of Cilicia. When he returned to Rome, at the beginning of 49, the second civil war was on the point of breaking out between Cæsar and Pompey. After much hesitation Cicero joined Pompey in the East. The next year, however, Cæsar, victor at Pharsalia, became master of the Roman world, and Cicero turned his back on the vanquished; but he did not venture to show himself at Rome until the autumn of 47, when Cæsar visited him in his retreat at Brundisium, and gave him permission to return.

Cicero now shut himself up with his books, and busied himself with the composition of his works on philosophy and rhetoric. But domestic troubles pressed upon him in his seclusion. He had now reached his sixty-first year, and after more than thirty years of married life he divorced his wife Terentia. The reasons for this step are not clearly known, but are conceivable. Almost immediately afterwards he married his young and wealthy ward Publilia. He was embarrassed with debt at the time. Soon after this second marriage his only daughter, Tullia, deeply beloved, died in child-bed. This was the sharpest sorrow of his life. He had but just before parted with his only son, and before the year closed he had divorced his young wife, in whom he did not find the sympathy and consolation he needed. From public failures and private distresses he turned the more earnestly to his books and his philosophy.

During this period he appeared to be the intimate friend of Casar;

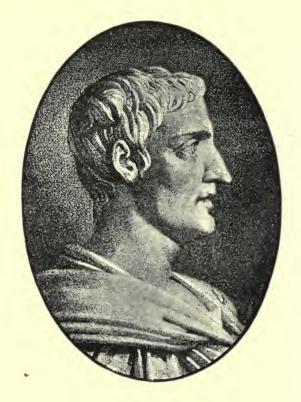
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but when Cæsar had fallen by the hands of Brutus and his fellow-conspirators (Ides of March, 44), Cicero openly applauded the deed, and took the part of the republicans. There is no evidence that he was privy to the conspiracy, but it is hardly possible to believe that he knew nothing He fled from Rome, but soon returned, and, rising to the height of the great occasion, he displayed, in opposition to Antony, a vigour and an energy long unusual with him. In rapid succession he now delivered the series of fourteen orations against Antony, which he named after the "Philippics" of Demosthenes, and which rank among the most powerful of his speeches. This magnificent effort cost him his life. Antony could not forgive him; and when a proscription was planned by the Triumvirs, Octavius, Antony, and Lepidus, Antony demanded the life of Cicero. As soon as the tidings reached him at his Tusculan villa, he fled, hoping to escape by sea; but he was overtaken in a wood by night, and, forbidding his attendants to resist, his head and hands were struck off by the pursuers (December 7, 43). They were sent to Rome, and with unpardonable brutality were exposed, by command of Antony, on the rostra, the scene of the orator's living triumphs.

The character of Cicero has been depicted by panegyrists and by calumniators. As usual, the truth probably lies between the extreme views. As a man he was distinguished by steadfast integrity and justice. "faithful among the faithless" of the time. Learned, philosophic, and genial, he won a host of friends, and was singularly free from envy and jealousy of rivals. As a statesman, indeed, he failed to fulfil the promise of his early manhood, chiefly for want of the robustness of character which was needed to cope with the difficulties and dangers of the evil times on which he had fallen. As an author, both by his orations and his writings on speculative and political philosophy, he takes a very high place, and has reaped the admiration and love of thoughtful students through generation after generation. He does not, indeed, bear the palm of the originator or discoverer in philosophy, but the merit of lucid expositor. He loved Plato chiefly, and founded his dialogues "The Republic" and "The Laws" on the great works of Plato bearing the same titles. In other treatises or dialogues, the "De Officiis," "Academica," "De Finibus," "Tusculanæ Disputationes," "De Naturâ Deorum," &c., he sets forth and discusses the doctrines of various Greek philosophers on the most concerning questions of human existence. Last, not least, among his writings are to be named his "Familiar Letters," of which about eight hundred are extant, half of them being addressed to his lifelong friend Atticus. "These," says Middleton, his admiring English biographer, "may justly be called the memoirs of the times, for they contain not only a distinct account of every memorable event, but lay open the springs and motives whence each of them proceeded." His works as a whole form the most authentic monuments of the events of his age. Moreover, in addition to their intrinsic worth, philosophical, historical, and biographical, they possess the charm of consummate literary style, and present to us the Latin language at its highest pitch of development.

CHRONOLOGY.

	A
a.c. Age	B.C. Age
06 Born at Arpinum.	62 "Pro P. Cornelio Sulla" 4
91 Receives the oga 15	58 Retires to Thessalonica 48
87-84 "De Inventione Rhetorica" 19-22	54 "Pro Crasso;" "Pro Æmilio
81 Begins to plead 25	Scauro" 52
79-77 Travels and studies; at	51 Proconsul of Cilicia; "De Re-
Athens, Asia Minor, Rhodes 27-29	publica"
75 Quæstor in Sicily 31	45 Death of daughter Tullia 61
70 "In Verrem Actio" 36	43 "Philippicæ I. to IV.;" put to
63 Consul; de'eats conspiracy of	death 63
Catilina	1



TACITUS.

л р. 55*-118*.

GREATEST OF THE HISTORIANS.

Caius Cornelius Tacitus is supposed to have been a native of Interamna (Terni), in Umbria, and it has been assumed, with every appearance of probability, that he was the son of Cornelius Tacitus, a procurator appointed by the Emperor to manage the Imperial revenue and govern a province in Belgic Gaul. In his youth he cultivated poetry, as we learn from his correspondence with the younger Pliny; and it has been conjectured that he sat at the feet of Quintiliau, though on this point there is no direct evidence. It is not known, indeed, where he was educated, but it is clear that he did not imbibe the smallest tincture of that frivolous science, and that vicious eloquence which in his time debased the Roman genius. His character, most probably, was formed upon the plan adopted in the time of the republic; and, with the help

of a sound scheme of home discipline, and the best domestic example, he grew up, in a course of virtue, to that vigour of mind which gives such animation to his writings.

His first ambition was to distinguish himself at the bar. At an early age he married the daughter of Agricola, and this matrimonial alliance is a sufficient proof that he occupied a position of considerable rank in Rome. He himself informs us that he began his career of civil preferment during the reign of Vespasian. "Vespasian," he says, "began my fortune; Titus increased it; Domitian completed it."

Under Domitian he was prætor, and also a senator. In the seventh year of that tyrant's reign Tacitus and his wife left the city of Rome, and absented themselves for more than four years. Some writers, willing to exalt the virtue of Tacitus, and to aggravate the injustice of Domitian, assert that Tacitus was sent into banishment. This, however, is mere conjecture, without a shadow of probability to support it.

In the reign of Nerva he was raised to the dignity of consul. It was at this period that he delivered the funeral oration on the celebrated Virginius Rufus, who had twice been offered by his legions in Germany the title of Emperor, before and after the death of Nero, and who had on both occasions refused it. In honour of Virginius the Senate decreed that the rites of sepulture should be performed at the public expense. Tacitus delivered the funeral oration from the rostrum, and the applause of such an orator, Pliny says, was sufficient to crown the glory of a well-spent life. This discourse unfortunately has not been preserved.

Tacitus had, it appears, already written the "Dialogue on the Causes of the Decline of Eloquence;" and at the close of Nerva's reign he composed the "Life of Agricola," his father-in-law, which is regarded as the masterpiece of historical panegyrics. To Englishmen this life is peculiarly interesting, as Britain was the scene of the great exploits of Agricola, who carried the Roman eagles even to the base of the Grampian mountains.

To the same period belongs the famous treatise "On the Manners and the Peoples of Germany," which throws much light on the primitive customs of the Teutonic race. About the time when this work appeared Tacitus gained a great oratorical success by preferring, along with Pliny, on behalf of the province of Africa, a charge against the proconsul Marius Priscus.

The "Life of Agricola" and the "Manners of the Germans" had already appeared when Tacitus wrote his "Histories." Of this grand work, which gave an account of contemporary events from the reign of Galba to the death of Domitian, we possess only the first four books and the beginning of the fifth, but we can form an estimate of the loss

history has sustained if we reflect that the portions now extant only comprise one year and a few months.

The "Annals" followed, including a period of fifty-four years. The style of these "Annals" differs from that of the "Histories," which required stately periods, pomp of expression, and harmonious sentences. The "Annals" are written in a strain more subdued and temperate; every phrase is a maxim; the narrative goes on with rapidity; the author is sparing of words and prodigal of sentiment; the characters are drawn with a profound knowledge of human nature, and when we see them figuring on the stage of public business, we perceive the internal spring of their actions; we see their motives at work, and, of course, are prepared to judge of their conduct.

His "Pleadings," his collection of "Witty Sayings," and his "Poems" are lost.

Of the life of Tacitus we really know scarcely anything, and even the date of his death has not been ascertained. With respect to his private life nothing has been recorded; we only know that he was on terms of the closest friendship with Pliny the younger. There is every reason to believe, however, that Tacitus was a celebrity at Rome, as well as his friend, and on this point a charming anecdote has been preserved. Tacitus being present one day at the games of the circus, he entered into conversation with a Roman knight, who asked him whether he was an Italian or a provincial. "I am not altogether unknown to you," replied Tacitus, "and it is to literature that I owe this advantage." "Then you are either Tacitus or Pliny," rejoined the stranger.

The commentators assume that he must have left issue, because they find that M. Claudius Tacitus, who was created Emperor in A.D. 275, deduced his pedigree from the historian. We are told, besides, that the Emperor ordered the statue of Tacitus, and a complete collection of his works, to be placed in the public archives, with a special direction that twelve copies should be made every year at the public expense; but when the mutilated state in which the author's works have come down to posterity is considered, there is reason to believe that the orders of this Emperor, who reigned only six months, were never executed.

Grammatically considered, the language of Tacitus has grave defects, but in style, that is to say, colour, movement, harmony of expression, poetry, and soul—the life of all eloquence—there is hardly any author, either in prose or verse, who is superior to Tacitus. Racine has not equalled him in his description of the death of Britannicus, while Virgil's episode of the death of Priam and the desolation of Troy can at most only be compared with the picture of the death of Galba and the revolution of Rome. It is this deep and true pathos which makes the his-

torical narrative and the philosophy of Tacitus rise superior to the rapid and vigorous declamation of Sallust.

CHRONOLOGY.

A.D.				Age	A.D.	Age
	Date of birth.				98 "Historiæ"	37
88	Prætor		٠	27	99 Conducts prosecution	of
					Marius	
97	Consul Suffectus			36	117 Date of death	. 56



PLUTARCH.

A.D. 50*-120*.

FATHER OF BIOGRAPHY.

This great philosopher and historian of antiquity was a native of Cheronea, in Bootia, but he was far from partaking of the proverbial dulness of the people of that country. He belonged to a good family, members of which occupied those high municipal offices that he himself in turn filled when he went back to settle at Cheronea after his long travels. He held it to be a point of honour to give to the place of his birth some of the celebrity he had himself acquired. "Born in a little town," he used to say, with simple pride, "I love to live there in order that it should not become still smaller."

Plutarch prosecuted his studies at Athens, under Ammonius of Alexandria, in whose house he dwelt. His preliminary education having been completed, he set out upon his travels, first visiting Fgypt, where

he began to accumulate his vast stores of historical and mythological lore. In his treatise of "Isis and Osiris" he has described the principal ideas he entertained of the Egyptian religion, and this work possesses for us a singular interest. From this period Plutarch systematically wrote down descriptions of what he saw, diligently examined public and private records, and composed collections of memoirs which eventually were of the greatest use to the historian and the moralist. On his return to Greece he visited the principal academies, and resided for some time at Sparta for the express purpose of studying on the spot the mechanism of its ancient government and of its legislation. Wherever he went he gathered facts and notable sayings, consulting, for th purpose, books, statues, medals, inscriptions, and paintings. appears," says one of his ancient biographers, "to have had his memory always engaged in collecting information, and his judgment ceaselessly occupied in discerning what it was necessary to reject or to retain." Applying the same attention to the study of the positive sciences, and then to medicine, to the laws of health, and to other matters of a practical kind, and being eager, above all things, to become acquainted with the history and the developments of the philosophical sects, Plutarch remained ignorant of nothing that was known in his time.

This laborious preparation gives us a sufficiently lofty idea of the multifarious study and research necessary to be pursued by those who wished to follow the profession of a sophist, for that was the profession to which Plutarch aspired, and which he practised for a long time in Rome.

Before repairing to that great capital, he was sent by his fellowcitizens on a mission to the proconsul of Achaia-a circumstance which attests the public esteem he was already beginning to enjoy. It was long believed, on the authority of Suidas, that he was the tutor of Trajan, who, on being raised to the Imperial purple, appointed him consul, and heaped honours and wealth upon him. This is, however, a mere invention. It is probable that Plutarch's residence in Rome, which extended over more than a quarter of a century, was interrupted by frequent visits to Greece. During his long stay in the Eternal City he did not find time, according to his own admission, to acquire a knowledge of the Latin tongue. He learnt, indeed, the names of ordinary objects, but it was not till late in life that he applied himself to the study of Latin literature. Many celebrated Greeks attended his courses of philosophy, and not a few of his auditors belonged to the Roman aristocracy. Plutarch spoke fluently, being aided by notes carefully prepared beforehand, which in his old age he edited, and gave to his thoughts the form in which they have descended to us. In the same way he has preserved in his "Table Talk" the substance of familiar conversations which he held, chiefly at Rome, with men of rank and

talent; so that it is possible to follow the development of his ideas and his doctrines during that long space of time.

From various passages in his works it appears that while at Rome he was also entrusted by his fellow-citizens with some kind of public office, like that of the modern chargé d'affaires, and it is to be regretted that he has not more fully explained the nature and the duties of this post.

The period at which he returned to establish himself at Chæronea is He was there elected archon, and then he filled the humble post of inspector of buildings. His renown was at this time spread all over Greece. Athens accorded to him the right of citizenship; Corinth and Elis invited him to their grand civic feasts; he was priest of the Oracle of Apollo at Delphi. Foreigners who visited the principal cities of Greece went to see him, and accounted it an honour to be received at his house. His home was that of a sage, and he lived in tranquillity in the midst of his family. In this quiet retirement Plutarch, reposing at the close of an extremely laborious life, put in order his voluminous notes and documents, and composed the works which have made his name immortal-the "Moralia," or ethical works, and the famous "Parallel Lives." The "Moralia" consist of the lectures and improvisations which, according to the fashion of the time, he delivered wherever he went. They possess great and varied merits, but are inferior to the "Lives," which contain an account of forty six Greeks and Romans, arranged in pairs. Some scholars have underrated the value of Plutarch's "Lives," and have charged him with inaccuracy and plagiarism. In spite, however, of certain reserves that criticism might make, the "Parallel Lives" is assuredly one of the most excellent books which honour humanity. In it are found a remarkable moral elevation, a rare knowledge of the human heart, immense erudition, and marvellous skill of narration. It has been, in modern times, the book of antiquity which has had the most powerful attractions for statesmen, moralists, and dramatic authors, that is to say, for the men who want to know the human heart in order to make use of it, to direct it, or to depict it. Shakspeare has taken from Plutarch the subjects of three of his plays; and an able scholar of our own day has truly remarked that Plutarch's "Lives" is, and will remain, in spite of all the fault that can be found with it by plodding collectors of facts and small critics, the book of those who can nobly think, and dare, and do. It is a mirror in which all men may look at themselves.



MONTAIGNE.

A.D. 1533-1592.

THE MODERN ESSAY.

For the clear manifestation and further discovery of truth, it cannot but be desirable that every mood natural to the human mind should be well represented in literature. In all fields of inquiry we have knowledge, belief, opinion, and doubt; and it is well that in books, besides the exposition of the things we know, believe, or opine, room should be found for the statement of honest doubt. There are, indeed, men and societies of men with whom it is a settled axiom that "doubt is devil-born." If this were true, the only wise course, if a possible one, would be war to the death against it. As well strike at Hamlet's ghost;

"For it is as the air invulnerable,
And our vain blows malicious mockery."

Without going so far as to accept the paradoxical suggestion that a

Church should be founded for the doubters, it is clearly the part of a wise and fair-minded man to lend an ear not only to the man who says "I know," and to him who says "I believe," but also to him who says "I doubt."

Outside the circle of systematic philosophies, Montaigne is the greatest representative of the doubting habit of mind or of scepticism. He was the first writer of his age to adopt it, and he more than any other contributed to make it current in his own country. By translations his work soon became known in other lands; and his reputation has widened and grown stronger with the lapse of time. At the present day his name is one of the few great ones ever on the world's large tongue; the facts of his biography are the subject of ever-renewed investigations; and his writings rank with the greatest treasures of cultivated minds in all nations. His countrymen have coined a special term to designate the study of his life and works—Montaignologie.

Michel, Seigneur de Montaigne, was born at the family seat, the château of Montaigne in Perigord, in 1533. The sixty years of his life covered one of the great periods of French and European history. At the time of his birth Luther was just completing his German Bible, having struck the first note of the Reformation fifteen years before; Calvin was about to begin preaching; and the Society of Jesus already existed in embryo in the brain of Loyola. In his manhood France was in the paroxysm of her religious wars, the climax of horrors being reached on the day of St. Bartholomew.

The family name was Eyquem, from which some have conjectured that it might be of Flemish or even of English origin. The father of Michel was a noble, but not rich. The child was put out to nurse in a village, was habituated to a rude diet, and thus making acquaintance with the life of poor men became capable of a sympathy with their toils and sufferings which he never lost. He was taught Latin from his cradle, and heard no other language till he was six years old, when he was sent to the College of Guienne, at Bordeaux. Here he remained seven years, and then applied himself to the study of law. At the age of twenty-four he was appointed one of the judges of the parliament of Bordeaux. This position he held for thirteen years; but the period is almost a blank in his biography. He made several visits to Paris and the court, thus enlarging his experience of men, became acquainted with L'Hôpital, and formed a friendship with Etienne de la Boétie, which was too soon terminated by the death of the latter.

On succeeding to the seigneurie (1570) he resigned his office of judge, appeared again at court, and was appointed Gentleman-in-ordinary of the Bedchamber. He had married the year before, less, he says, to please himself than his friends and the world. He now spent twelve years in strict retirement in his château, busy with his thoughts, his books, and his pen; managing his estate; and keeping up social intercourse with

his neighbours, by whom he was held in high esteem for his practical wisdom and complete integrity. He began the composition of his famous "Essays" in 1572, the year of the Bartholomew massacre; and they were published in 1580. For the sake of his health, which, though seldom-good after middle age, he would never entrust to a doctor's direction, he spent about two years in travelling in Germany, Switzerland, and Italy. At Rome he was presented to Pope Gregory XIII., who gave him the freedom of the city. The private record which he made of this visit to Italy, after being lost sight of for two centuries, was discovered and published in 1774. During his absence in Italy he was elected mayor of Bordeaux; and being re-elected at the close of his term, held the office for four years. He then returned to his country seat. But in consequence of the war of the League and an outbreak of the plague he was driven away (1586), and for a time led an unsettled life. While at Paris (1588) he was visited by a young lady, Marie de Gournay, who from reading his "Essays" had apparently fallen in love with him. She was accompanied by her mother. Thus began a romantic and lifelong friendship, Montaigne accepting her enthusiastic homage as that of an adopted daughter. The same year Montaigne, with several friends, men of note, was at Blois at the time of the meeting of the States-General and the murder of the two Guises. While there he conducted the negotiation of an arrangement between the Duke of Guise and Henry of Navarre. In 1589 his friendship with Pierre Charron began.

But the end was now approaching. Montaigne was subject to several painful diseases, which he bore with determined stoicism, adhering stoutly to his inherited repugnance to drugs and doctors. In the autumn of 1592 he was attacked with quinsy, and lost his voice. A small party of his neighbours gathered about his bed, and mass was said. The dying man, so far as his strength allowed, showed his participation in the act of worship, and so participating died (on the 13th of September, 1592). Marie de Gournay, with her mother, made the difficult and dangerous journey across a large part of France, to mingle her sorrow and sympathy with those of the widow and only daughter of her friend in his own home. His remains were ultimately interred at Bordeaux, where a monument was erected which is still to be seen. The château of Montaigne, still standing, is a place of pilgrimage for many admiring students of all countries.

Five editions of Montaigne's "Essays" appeared in his lifetime, and another, under the care of Marie de Gournay, in 1595. From 1580 to 1650 thirty-one editions are counted. Between 1659 and 1724 no new issue was called for; but since that time new editions have continually succeeded each other. The "Essays" have been translated into almost all European languages. An English translation by Florio appeared in 1603; and this is especially interesting as one of the only two books

known to have been in Shakspeare's library. His copy, bearing his autograph, is in the British Museum; and it has for companion, by a surprising chance, the copy of the same work which belonged to Ben Jonson, bearing his autograph. Another English version of a far higher character appeared in 1685. Its author was Charles Cotton, now best known as the friend of Izaak Walton. Written in racy English, and in a pithy style akin to that of Montaigne himself, it has passed through many editions, and is still a favourite.

Montaigne is facile princeps among egotists. There are egotisms and egotisms. Milton was an egotist, of a very high and noble kind. Montaigne takes his place in a lower rank. Although it is idle to quarrel with facts, in literature or in life, the wish may be forgiven that he had not dealt out to us with so much relish and with so lavish a hand his personal confidences on all manner of ignoble matters. Something must be allowed for the coarse character and free customs of the age; and it must be remembered that a bookish woman was then a rara avis. After all abatements on the score of refinement, the "Essays" remain one of the richest, most sincere, and most fascinating of books. When the king told Montaigne that he liked his book, Montaigne replied-"Then your Majesty must needs like me; my book is myself." He wrote not to please the town, not with the fear of "irresponsible reviewers" before his eyes, not by critical rule, but to please himself. Although he pours out before us abundant fruits of varied reading, chiefly of the wiser ancients, the real and resistless charm of his book is the frank revelution made in it of himself. The portrait, exposing follies and frailties as freely as their opposites, has attracted the admiring esteem of the wiser readers generation after generation. Speaking mainly out of his own experience he seems to be the spokesman of "the collective experience of humanity." His book has been called "the breviary of freethinkers." It may be this, but it is much more besides. It must not be forgotten, that while Montaigne saw and insisted on the feebleness of human reason and the exceedingly narrow limits of human knowledge, he accepted, as Locke did, the authority of divine revelation. and lived and died "a good Catholic."

The biography of Montaigne by Mr. Bayle St. John forms a serviceable introduction to his works,

CHRONOLOGY.

A.D. Age
1581 "Journal du Voyage de Michel
de Montaigne," &c 48
1586 Driven from his château by
war of the League 53
1588 Mediated between Henry of
Navarre and Duke of Guise 55
1592 Died at Montaigne, Périgord . 59



MONTESQUIEU.

A.D. 1689-1755.

THE PHILOSOPHY OF HISTORY.

The eighteenth century has been as gravely disparaged by some thinkers, men of a noble type that must be heeded, as the Middle Ages by others; and equally vigorous pleas in defence and honour have been urged in both cases. The cause of the eighteenth century must be considered as still sub judice. Whatever the ultimate judgment as to its character, its products, and its tendencies may be—and we may hope that in this, as in so many instances, the poet's saying will be fulfilled—

"And after praise and blame cometh the truth "-

one fact is clear, that it has left the world the richer by some noble monumental works of human intellect. It has given us no "Hamlet" or "Lear," no "Paradise Lost," nor any works of creative imagination to

rank with or near these. Its labours were mostly in the region of facts, and its chief literary monuments are to be found in the fields of history, philosophy, science, and politics. Among these Montesquieu's master-

piece, the "Esprit des Lois," holds a high place.

Charles de Secondat, Baron de Brède et de Montesquieu, was born of a noble family at the Château de la Brède, near Bordeaux, on the 18th of January, 1689. It was at the crisis of the English Revolution; France was suffering from the Revocation of the Edict of Nantes, effected four years earlier; and five years later Voltaire, and with him potentially a whole new world, was born. The young noble's great abilities were early apparent, he devoted himself passionately to study, and was efficiently aided by his father. Destined for the profession of the law, he accumulated a large mass of extracts from the Civil Law, which proved to be the first part of his preparation for his great work. He began at the same time to think for himself on some deep and difficult subjects; and at the age of twenty wrote a tract to show that the idolatry of the heathen-he already loved Socrates and Plato, Cicero, Plutarch and Seneca-did not deserve eternal punishment. From prudential motives this piece was either not published or quickly suppressed. 1714 he became a judge in the Parliament of Bordeaux, the very court in which a century and a half before Montaigne had held the same office; and in 1716 he succeeded his uncle as president. Physical science was at this time engaging his attention—a further step in his necessary culture and training.

In 1721 he astonished his countrymen with a small book entitled "Lettres Persanes," in which, under the guise of a travelled Persian and a mask of mirth, he satirized their follies and vices, their levity, vanity, extravagance, and quarrelsomeness, hitting hard and sparing no one. For the sake of contrast he held up the example of England, under the guise of a virtuous race of Troglodytes. The book appeared anonymously, but its authorship was not long concealed. Its success was immense. Montesquieu himself records that publishers, eager for other the like profitable surprises, would catch hold of authors as they passed, and beg them to write some more "Persian Letters." This sparkling work was translated into English by Ozell, in 1730. Its method was adopted by Goldsmith in his "Letters from a Citizen of the World."

Montesquieu did not relish the law as a profession, his thought moving in a wider sphere. "After leaving college," he says, "they gave me law books, but I was in search of the spirit." Having held his judicial office for ten years, he sold it and retired. In the following year he was a candidate for a seat in the French Academy; but Cardinal Fleury, then first minister, told him that the king, Louis XV., would never consent to the admission of the writer of the "Persian Letters."

Determined not to let slip the honour of election, he altered—so states Voltaire—the offensive passages in the "Letters," had a new edition rapidly printed off, and presented a copy himself to the minister, who then took the trouble to read it. (The story is differently told by D'Alembert in his "Éloge.") The way was now opened, and in January, 1728, Montesquieu was received as one of the Forty.

For the enlargement of his knowledge he now spent several years in foreign travel, visiting first the Imperial Court, then Hungary, Italy, Switzerland, Germany, Holland, and England. At Vienna he met Prince Eugene; at Venice the notorious Law, projector of the Mississippi scheme; and at Rome he associated with Cardinal Polignac, Accompanying Lord Chesterfield to England, he was presented to Queen Caroline, who delighted in the society of the wise and learned, and was the friend of Butler and Berkeley. He made acquaintance also with many eminent men, studied the principles and the working of the English government, and was chosen a fellow of the Royal Society. His travels were followed by a studious retirement of two years; and he then gave to the world his weighty work, the "Considérations sur les Causes de la Grandeur des Romains et de leur Décadence" (1733). Henceforth he devoted himself to the preparation of the magnum opus which he had long meditated. Like Milton, he was in no hurry to publish, but was content to wait the slow furnishing of his mind and the ripening of his faculties. After entering upon his task, the growing sense of its vastness almost paralyzed him, and he several times dropped and resumed it. When he had at length completed it, he sought the opinion of his friend Helvetius. This opinion was unfavourable; and Helvetius, supported by another friend, Saurin, strongly advised the author not to publish it. It would, he said, be the ruin of his repu-He did not however alter a word; and in 1748 the "Esprit des Lois" appeared in two quarto volumes, printed at Geneva. It found an audience immediately, ran through twenty-two editions within eighteen months, and was famous over all Europe.

The purpose of the "Esprit des Lois" was not to set forth what governments ought to be; but to find in nature and in history the explanation of existing maxims and institutions of various nations; to show how diversities in physical and moral circumstances have contributed to produce diversities in government and municipal institutions. Its special interest is in its exposition of relations between sets of phenomena apparently unrelated to each other. To its author pertains the distinction of being the first fully to apprehend and luminously exhibit the inward natural connections between history, philosophy, politics, and jurisprudence. Foreshadows indeed of these connections had been seen; but the originality of Montesquieu's views justified the proud motto on his title-page—Prolem sine matre creatam. The work is pervaded by an

earnest love of freedom, which in its sobriety is akin to English rather than to French aspirations. Many hostile attacks were made on the book; but only one of these, involving a charge of atheism, provoked any reply. The author published a "Défense de l'Esprit des Lois;" and the Sorbonne, which had a sharp eye on the original work, refrained from the condemnation which it was about to issue. The influence of the "Esprit des Lois," which was translated into English by Nugent in 1750, is believed to have been more powerful in Great Britain than in France. It is distinctly traceable in the "Wealth of Nations," which appeared about thirty years later, of which Gibbon said—"The strong ray of philosophic light on this subject which broke over Scotland in our times was but a reflection, though with a far steadier and more concentrated force, from the scattered but brilliant sparks kindled by the genius of Montesquieu." Mackintosh, in his "Discourse on the Study of the Law of Nature and Nations," pronounces a noble (not a blind) eulogy on the book, and says that he never names the author without reverence. It was a favourite handbook of the lovers of "regulated liberty," as distinguished from the fanatics of the Revolution. Voltaire, though no friendly critic, recognized its literary quality, and said -" Le genre humain avait perdu ses titres; Montesquieu les a retrouvés et les lui a rendus."

The sudden blaze of reputation did not turn the head of so sober and wise a man as Montesquieu. His few remaining years were spent partly at his country seat and partly at Paris. He was a welcome guest in cultivated society; and was beloved by the country people around his home. His private character and life were irreproachable. He married in 1715, and had two daughters and a son. His eyesight, never strong, almost entirely failed him in his later years. His health too gradually broke up; and during a visit to Paris in 1755 he had a severe illness, and died there on the 10th of February of that year. In his last illness he was annoyed by attempts on the part of the Jesuits to convert him; but, while avowing his regard for religion, he would have nothing to do with them.

In addition to the works above named, Montesquieu wrote and appended to the "Considérations," a "Dialogue de Sylla et d'Eucrate," a powerful sketch of the Dictator and of the Roman people cowed by his tyranny; a miniature classical romance entitled "Le Temple de Gnide;" and a "Histoire physique du Monde ancien et moderne." The last was an early work.

CHRONOLOGY.

A D.	I	Age	A.D. Ag	ne.
	Born at Château de la Brède.	0	1729-31 Visited England; elected	, -
1714	Counsellor to Parliament of		F.R.S	
	Bordeaux	25	1734 "Considérations sur les Ro-	
1716	President à Mortier	27	manis." &c 4	5
1721	"Lettres Persanes"	32	1748 "Esprit des Lois"	9
1725	"Le Temp!e de Gnide"	36	1755 Died at Paris 6	66
1798	Received at Evenah Acalemy	90		



VOLTAIRE.

A.D. 1694-1778.

GREATEST CRITIC OF MODERN TIMES.

"When the right sense of historical proportion is more fully developed in men's minds, the name of Voltaire will stand for as much as the names of the great decisive movements in the European advance, like the revival of learning or the Reformation. The existence, character, and career of this extraordinary person constituted in themselves a new and most prodigious era. The peculiarities of his individual genius changed the mind and spiritual conformation of the West with as far-spreading and invincible an effect as if the work had been wholly done, as it was actually aided, by the sweep of deep-lying, collective forces. A new type of belief and of its shadow, disbelief, was stamped by the impression of his character and work into the intelligence and feeling of his own and following times. We may think of Voltairism somewhat as we think of the Catholicism of

the Renaissance or Calvinism. It was one of the cardinal liberations of the growing race, one of the emphatic manifestations of some portions of the minds of men, which an immediately foregoing system and creed had

either ignored or outraged."—Morley.

Voltaire, or to give him the name of his family and youth, François Arouet, was the second son of a wealthy notary, and was allied to the nobility by his mother. He was born at Châtenay, near Sceaux—endowed with a most surprising intelligence, but an extremely feeble constitution. His first instructors were the Jesuit fathers of the College Louis-le-Grand, who remarking the bent of his genius, and being often witness of his witty penetration, predicted that he would become the Coryphæus of Deism. He was encouraged in these early predispositions by the privately-avowed unbelief of a friend of his father's, the Abbé Châteauneuf, who became a kind of patron to the young Arouet, and introduced him to those circles in Paris where the hypocrisy of the Court and religious orthodoxy alike were held in great contempt.

Launching out into literature, he became speedily noted for his seathing wit. Unjustly accused of the authorship of a satire against Louis XIV., he found himself for some months a prisoner in the Bastille, but devoted his confinement to writing his first play, "Œdipus," which was brought out in 1718. His father tried to draw him from literature and Paris by getting him an appointment with the French Ambassador to the Hague, but he soon returned to his former life, and in 1726 was imprisoned a second time for having offended the powerful Chevalier de Rohan. On his release he was ordered to leave France. He came to England, where there was more freedom of tongue and pen, acquired the language with remarkable facility, and entered into friendly relations with Bolingbroke, Tindal, and Collins, and learned to admire Newton, Locke, and Pope. In 1735 he published his "Letters on the English," which were publicly burned in Paris.

In 1755 the storm which he had raised in France had so far subsided as to enable him to return, but not to Paris. He settled at Circy, with Madame du Châtelet, varying the monotony of his residence in a solitary château by visits to Frederick the Great of Prussia, being once charged with an affair of diplomacy. In 1750 his connection with Madame du Châtelet came to an end by reason of her death, and he accepted the invitation to reside at the Court of Frederick. But after three years of amicable relations a misunderstanding with Maupertins, succeeded by a quarrel between Voltaire and the Great Frederick, caused him abruptly to leave.

During his residence at Circy and Berlin he had composed his "History of Charles XII. of Sweden," finished "Siècle de Louis XIV.," and written "La Pucelle," and many tragedies, and occupied himself with the physical sciences. With Madame du Châtelet he had studied Newton and Leib-

nitz, wrote a popular exposition of the discoveries of Newton, became a candidate for the prize of the Academy, and published a memoir in which he ranged himself on the side of Descartes and Newton against Leibnitz and Bernouilli.

But if ever a man was called, not to science, metaphysics, theology, or poetry even, but to literature alone, that man was Voltaire. Literature is really an art of form, as distinguished from those efforts of the intellect which strive to increase knowledge. "Voltaire is the very first man in the world," says a contemporary of his day, "at writing down what other people have thought;" and after Euler had borne away the prize at the Academy, and death had removed the scientific Madame du Châtelet, Voltaire succumbed to the dictates of his own reason, and the advice of friends, and devoted himself to literature alone.

After leaving Prussia he spent some months in Alsace, for the publication of his "Essay on Manners" had added another barrier to his return to Paris. At last he settled at Ferney, a small village near Geneva, and for the next twenty years gazed upon the busy world from this retired spot. Madame Denis, his niece, presided over his house, and having a yearly income of about 10,000/, he exercised the duties of hospitality in a princely manner, and was never without guests, being visited by the great, the learned, and the curious of all countries. But he was not simply the charming and irresistible host, all these years, he was the indefatigable worker, seeming to sustain a feeble body by the energy of his soul. At Ferney were written some of his most important works, "On the Natural Law," "History of Russia," "Philosophical Dictionary," many tragedies and romances, and much matter contributed for the Encyclopædia of Diderot. He interested himself in many cases of oppression and injustice: he protected the innocent and unfortunate, using his wealth and influence in their behalf. Every one knows the story of his efforts in behalf of Admiral Byng, of the Protestant Calas, the Count Lally, &c. The two words which sum up his teachings and writings are, toleration and humanity. For sixty years he struggled to convert the world to an acceptance of his doctrine, and he lived long enough to see in Russia, Denmark, and Poland, in Prussia, and a good part of Germany, a firm footing given to liberty of conscience and freedom of thought.

In his eighty-fourth year he yielded to the importunities of friends and journeyed to Paris, where he was received in triumph, fêted, and crowned in the theatre. But the excitement proved too strong for the feeble old man, and shortly after his arrival he died. His body remained in the Abbey of Sellières until the Revolution, when it was deposited in

the Pantheon.

"Voltaire's ascendency," says Morley, "sprung from no appeal to those parts of human nature in which ascetic practice has its foundation. Full exercise and play for every part was the key of all his teaching. He had

not Greek serenity and composure of spirit, but he had Greek exultation in every known form of intellectual activity, and this audacious curiosity he made general. Voltairism was primarily and directly altogether an intellectual movement for this reason, that it was primarily and directly a reaction against the subordination of the intellectual to the moral side of men, carried to an excess that was at length fraught with fatal mischief."

While regretting the lengths to which Voltaire allowed his hatred of the hypocrisies of the day and generation to carry him, we must claim for him the highest honours, in regard to his sincere and vehement abhorrence of the military spirit, for his repeated protests against bloodshed. Bossuet had already brought his rhetoric to bear; Voltaire, with Montesquieu, in a grandly comprehensive and philosophic manner, boldly attacked the subject. It is said his "Essay on Manners" is one of the foundations of modern history. He was one of the few historians who combine in one the three kinds of persons who write history: the analyst, the statesman, and the philosopher. He strove always to separate history from geography, statistics, and anecdote, and to give it an independent character. He rested his theory on two principles: first, that laws, customs, and arts are the real things to be treated of; and, secondly, that trifling details embarrass the mind for nothing. "I would rather have details," he said, "about Racine, Molière, Bossuet, and Descartes, than I would about the battle of Steinkirk. A picture by Poussin, a fine tragedy, a truth established, are all of them a thousand times more precious than the annals of a Court, or the narratives of a campaign."

Voltaire's greatest quality, as well as his great fault, is clearly set forth in the latest work of M. Taine, "The Ancient Régime," and this judgment may be accepted as the final decision in a difficult case.

"An entire philosophy, ten volumes of theology, an abstract science, a special library, an important branch of erudition, of human experience and invention, is thus reduced in his hands to a phrase or to a stanza. From the enormous mass of riven or compact scoriæ he extracts whatever is essential, a grain of gold or of copper as a specimen of the rest, presenting this to us in its most convenient and most manageable form, in a simile, in a metaphor, in an epigram that becomes a proverb. In this no ancient or modern writer approaches him; in simplification and in popularization he has not his equal in the world. Without departing from the usual conventional tone, and as if in sport, he puts into little portable phrases the greatest discoveries and hypotheses of the human mind, the theories of Descartes, Malebranche, Leibnitz, Locke, and Newton, the diverse religions of antiquity and of modern times, every known system of physics, physiology, geology, morality, natural law, and political economy, in short all the generalized conceptions, in every order of knowledge to which humanity had attained in the eighteenth century. His tendency in this direction is so strong as to carry him too far; he belittles great things by rendering them accessible. Religion, legend, ancient popular poesy, the spontaneous creations of instinct, the vague visions of primitive times, are not thus to be converted into small current coin; they are not subjects of amusing and lively conversation. A piquant witticism is not an expression of all this, but simply a travesty."

Carlyle has declared that Voltaire is the Eighteenth Century. It may also be said that he is France. Without him, indeed, France would be what England would be without Shakespeare and Cromwell.

CHRONOLOGY.

	A		A
A.D.	Age	A.D.	Age
1694	Birth of Voltaire at Châtenay.	1736 Correspondence with Fre-	
	Imprisoned in the Bastille . 23	derick of Prussia	42
1718	Liberated; "Œdipe" 24	1740 Visited Frederick at Cleves .	46
	Visited Rousseau at Brussels 28	1746 Admitted to the Academy	52
172 k	"Henriade" 30	1750 Resided with Frederick at	
1726	Again imprisoned and libe-	Potsdam	56
	rated 32	1755 "La Pucelle"	61
1726	-29 Resided in England . 32-35	1756 "Essai sur les Mœurs"	62
1730	"History of Charles XII." . 36	1760 Settled at Ferney	66
1731	"Lettres Philosophiques" . 37	1764 "Dictionnaire Philosophique"	70
1734	Resided at Circy with Ma-	1778 Visited Paris; died there	84
	dama du Châtolat 40		



DIDEROT.

A.D. 1713-1784.

THE ENCYCLOPÆDIA.

Denis Didenot was the eldest son of a cutler of Langres. At the age of nine he entered the school of the Jesuits, and later was sent to Paris to the Collège d'Harcourt. After finishing the college course, and refusing to study either law or medicine, he found himself thrown on his own resources, and until his thirtieth year led the sort of vagabond existence not uncommon to literary men of his century. After 1743 he gained some notoriety as an author by publishing his "Essay on Merit and Virtue," "Philosophical Thoughts," "Interpretation of Nature," and "Letters on the Blind." For the religious views contained in the latter he was imprisoned at Vincennes.

In 1749 he undertook the "Encyclopædia," the grand work of his life and of the century, and perhaps of modern times. Associated with

him, at first as co-editor, was d'Alembert, who abandoned the enterprise when it was attacked so vehemently by the Catholics, and when all who were not for it were against it. Diderot bore the brunt of the battle alone, and the immense amount of work he accomplished seems almost incredible. For years he never knew a day of repose, nor of security. Yet no man of that century was better fitted to carry such a burden. Besides moral energy, Diderot united two other qualities not less essential to the founder of such a vast work,—a sincere love of truth, and consequently great zeal in seeking it, and an aptitude which may be called an encyclopædic faculty. His learning was prodigious, and, further, he could learn anything he chose. Being charged with the department of the arts and sciences, he began to study from life all the machines and processes he had to describe, often learning the trades themselves, in all their details. In 1758 appeared the seventh volume of the "Encyclopædia," and two plays by Diderot, "The Father of the Family," and "The Natural Son."

In 1765, after reaching its seventeenth volume, the "Encyclopædia" was finished, and Diderot found himself poor, approaching old age, with a daughter to provide for. He resolved to sell his library. The Empress Catherine of Russia became the purchaser, but made him its librarian, paying his salary "fifty years in advance."

In 1773 Diderot went to St. Petersburg to thank his benefactress, whom he greatly pleased. She consulted him on all her plans, overwhelmed him with benefits, and he returned to France escorted by a gentleman of her court. Although he did not meet the fate of Descartes at the court of Christiana, he returned to Paris with altered health, but put himself instantly to work and soon published "Voyage in Holland," "Jacques le Fataliste," "La Religieuse," and his more important work, "Essay on the Reigns of Claudius and Nero" (a defence of Seneca).

In 1784 he fell ill; recovering somewhat, he was removed to the elegant apartments prepared for him by Catherine's continued bounty; but after enjoying them twelve days the end came, and in his seventy-first year he passed away.

The Encyclopædia. Diderot was first asked to edit a translation of Chambers's "Encyclopædia," but the philosopher was not pleased with this meagre work, and conceived the idea of another more complete. He first thought of arranging a table or inventory of human knowledge, where all the results of progress and civilization would be found classified in an immense collection. But in such a prodigious undertaking he clearly saw that there was need of a second person, and laid the plan before d'Alembert, who was an admirable man for such an enterprise. The idea expanded, and in 1750 appeared the prospectus, which called the work a picture of human knowledge, and is a chapter to the "glory

of the arts and sciences and manual labour." With almost prophetic instinct he dwelt on the subject, and "here," says M. Martin, "Diderot, so often exaggerated, so often emphatic, is simple, because he is truly great. He felt the importance of a work which was to be the rehabilitation of labour, which until that time had been called servile; he made himself the historian of the long line of past generations who had no history, but to whom civilization owes its well-being, its intelligence, and its indispensable instruments. He announces that he will raise a monument to them, by the exposition of the science of the arts and trades, the admirable legacy of anonymous genius to the lower classes."

He says, "The matter of our 'Encyclopædia' may be ranged under three heads. We shall begin with the consideration of the Sciences, proceed to the Liberal Arts, and conclude with the Mechanical Arts. Our conduct in the Mechanical Arts requires great pains and attention. Too much has been written upon the Sciences, scarcely anything upon the Liberal and Mechanical Arts. Chambers has added little to what he translated from French writers, and hence we have been obliged to have recourse to the workmen themselves. We have visited and questioned them, cleared up and methodized their information, and learned the proper terms used in their arts. We were often obliged to procure the machines, construct them, and serve, as it were, an indifferent apprenticeship with a view of instructing others how to do better.

"By this method we have become convinced of the general ignorance that prevails with regard to most of the objects of common life, and the difficulty of enlightening it. The method we have followed is this. We treat, 1. Of the materials, the manner of preparing them, and the places where they are found. 2. Of the principal things made of them, and the process. 3. The name and description of utensils, tools, and machines employed. 4. We explain and represent the hand at work. 5. We collect and define all the peculiar terms of each art. As simply reading a treatise on the Mechanical Arts makes the clear apprehension of them difficult, we have found an absolute necessity of illustrating our work with plates. The bare view of an object, or its figure, may give more information than pages of words."

ESTIMATE OF THE MAN AND THE WORK.

"The 'Encyclopædia,'" says Morley, "was virtually a protest against the old organization no less than against the old doctrine. Broadly stated, the great central moral of it was this, that human nature is good, that the world is capable of being made a desirable abiding-place, and that the evil of the world is the fruit of bad education and bad institutions. It was the great counter-principle to asceticism in life and morals,

to formalism in art, to absolutism in the social ordering, to obscurantism in thought."

It was this band of writers, organized by a harassed man of letters, and not the nobles swarming around Louis XV., nor the churchmen singing masses, who first grasped the great principle of modern society, the honour that is owed to productive industry. They were vehement for the glories of peace and passionate against the brazen glories of war.

The union of all these secular acquisitions in a single colossal work invested them with something imposing. Secular knowledge was made to present a massive and sumptuous front. It was pictured before the curious eyes of that generation as a great city of glittering palaces and stately mansions; or else as an immense landscape, with mountains, plains, rocks, waters, forests, animals, and a thousand objects, glorious and beautiful in the sunlight. Men grew to be conscious of the vastness of the universe.

Diderot struck a key-note of difference between the old Catholic spirit and the new social spirit, between quietest superstition and energetic science, in the casual sentence in his article on almshouses and hospitals:—"It would be far more important to work at the prevention of misery, than to multiply places of refuge for the miserable."

The eighteenth century called Diderot the philosopher, the nineteenth century calls him the critic. The judgment of Ste.-Beuve is as follows :- "Before Diderot, criticism in France had been exact, curious, and fine with Bayle; elegant and exquisite with Fénelon; honest and useful with Rollin; but none of it had been lively, fruitful, or penetrating. It was Diderot who first gave the soul to criticism. He had in the highest degree that faculty of demi-metamorphosis, which is the triumph of the critic, and which consists in putting himself in the place of the author and examining the subject from his point of view. He excelled in being able at will to seize the inspiration of the author, and, in warming not only his imagination but his heart also, he often did the work better than they themselves. Then it was that he showed himself the great journalist of modern times, intelligent, eloquent, and generous; the friend of everybody and everything, giving to all the world, to readers, authors, and artists, not a lesson simply, but a feast.

"At the same time that we regret the exaggeration of which he accuses himself, the lack of discretion and sobriety, a certain license of manner, and defects of taste, we render homage to the good-nature, the sympathy, and cordial intelligence, to the richness and breadth of his views, and to the admirable freshness which he always kept in spite of his incessant toil He is the first great writer of the period who belongs decidedly to modern democratic society. He points out the way,

and sets the example. Putting the Academies to one side, he addresses himself to the public at large.

"Always to give, never to receive; 'to work out rather than rust out:' this was his whole maxim of life; this was the guiding-star that directed his energy and devotion to the end. Amidst all the varied pursuits of this great man something durable has been saved; and he teaches us how to attain a future and posterity, though it be by the débris saved from the wreck of everyday work."

CHRONOLOGY.

A.D.			A.D. Aga	
1713	Born at Langres.	_	1749 "Lettre sur les Aveugles,"	
1722	Sent to Jesuits' College .	. 9	&c. imprisoned at Vin-	
1732			cennes	
	sion	. 19	1751-61 Chief editor of "Encyclo-	
1742	Introduced to Rousseau .	. 29	pædia"38-48	
1743	Married	. 30	1773 Visited Court of Russia 60	
1746	"Pensées Philosophiques"	. 33	1784 Died at Paris 71	



LESSING.

A.D. 1729-1781.

GERMAN CRITIC AND DRAMATIST.

GOTTHOLD EPHRAIM LESSING, who has frequently been styled the Luther of German literature, of the German drama, and of German art, was born at Kamenz, a small town in Upper Lusatia, a province of what was then the Electorate of Saxony. In early infancy his education was directed by his father, who was a learned pastor of the Lutheran Church, and by one of his cousins, who acted as a private tutor. At the tender age of eight he was admitted into the public grammar-school of his native town, and he was afterwards removed to the school of St. Afra at Meissen, where he studied the Latin, Greek, English, French, and Italian languages, philosophy and mathematics, with such eager assiduity that he often spent over his books the hours set apart for recreation and repose. In 1746 he entered the University of Leipzig. His early friendship with

Schlegel, Mylius, Zachariæ, and Weisse, the acquaintance he made with some of the actors at the Leipzig theatre, and, above all, an irresistible inclination for the dramatic art, led him to renounce the theological career for which his parents had destined him. At the age of twentytwo he brought out a piece entitled "The Young Scholar." It was followed by the "Jews," the "Freethinker," and other plays of the same kind, which were loudly applauded. Later in life he himself criticized with just severity these crude productions of his youth; indeed, he went so far as to disavow the authorship of certain works which, through the indiscreet zeal of friends, had been given to the world without his knowledge.

In 1750 he undertook, conjointly with Mylius, a quarterly periodical devoted to the drama. It appeared at Berlin and was carried on for one year. At this period he studied the English and Spanish poets; and published a volume of original poems, under the title of "Trifles." Going to Wittenberg he took his degree of Doctor in Philosophy, and there resumed a life of study, without attending classes, and passed his days in his own modest apartment, or in the University Library, opened to him by a friend who held the post of under-librarian.

On his return to Berlin he gained a precarious livelihood by contributing literary articles to the Voss Gazette. A monthly supplement to that journal quaintly entitled "The newest out of the Kingdom of Wit," was edited and almost entirely written by Lessing. Here he had free scope, and first exhibited the real powers of a genius which won for him afterwards the proud title bestowed by Macaulay, of being "beyond all dispute the first critic in Europe."

During a brief retreat at Potsdam he composed "Miss Sara Sampson," a tragedy, acted subsequently with success at Leipzig. This play contributed largely to free German literature from the prevalent imitation of French writers, and to give it a new and original character. In fact it marks a period, not only in Lessing's writings, but in the development of the national literature. The title, the names of the personages, as well as the place of action, sufficiently announce its source of inspiration. is a domestic drama after the English pattern, the immediate materials being clearly derived from "Clarissa Harlowe" and Lillo's "London Merchant."

At Berlin he formed a close intimacy with the famous Moses Mendelssohn and the celebrated publisher Nicolai. During his second residence in the Prussian capital his reputation gradually and imperceptibly increased; his lively discussion with Pastor Lange, who had published a translation of Horace, drew upon him the attention of learned Germany; truth and talent were declared to be on his side; and the accomplished Michaelis of Göttingen publicly complimented the young controversialist.

Lessing was about to visit Italy, and had already made preparations for his departure, when the events of the Seven Years' War compelled him to relinquish the design. He now went back to Leipzig, where he conducted the "Library of Belles Lettres," a literary journal.

In the course of a third residence at Berlin he composed "Philotas," a drama which embodied the heroic sentiments of the period; and published his "Fables" in prose, and "Letters concerning Contemporary Literature." The talent he displayed in criticism was so marked that he was elected a member of the Academy of Berlin.

These multifarious labours enfeebled his health, and the constant poverty in which he lived induced him to accept the post of secretary to General Tauentzien, at Breslau. Five years later he withdrew from the uncongenial duties of this office, and returned to Berlin, having firmly resolved never to accept any other appointment which was not immediately connected with his favourite occupations.

He now published the "Laocoon," by many regarded as his greatest work, which has exerted a permanent influence upon both literary and artistic criticism; and his most faultless drama, "Minna von Barnhelm." The latter is a genuine character comedy, a healthy delineation of real life; not a one-sided impersonation of human vices or weaknesses.

In 1768, Lessing, attached as Director to the Grand Theatre of Hamburg, gave expression, in his *Dramaturgie*, to his opinions on dramatic art, and on the masterpieces of the great French writers for the stage. His primary object was to destroy the predilection of the Germans for the false classicism of the French, and to justify Shakspeare and the romantic school.

Lessing had just published his "Antiquarian Letters," and a charming little essay, "How the Ancients represented Death," when he was invited to Wolfenbüttel, under the powerful protection of Duke Ferdinand of Brunswick, who appointed him his librarian with a salary of 600 thalers, "rather that the library might serve him, than he the library." He, however, disdained to regard the office as a sinecure, and in the course of his researches among the manuscripts he had the good fortune to discover the curious treatise of Berengarius on the doctrine of the Eucharist. While at Wolfenbüttel he displayed astonishing literary activity. As a special favour his writings were exempted from the censorship, but this privilege was withdrawn in consequence of an acrimonious controversy in which he engaged with some Lutheran divines.

In the midst of these theological wranglings, which rapidly exhausted what remained of his health and strength, Lessing found time to write two of his most admired works, the tragedy of "Emilia Galotti," and

"Nathan the Wise," a dramatic poem, intended to inculcate the duty of toleration in matters of religion.

The "Fragments of an Anonymous Writer," a work of ill-repute, directed against the dogmas of Revelation, brought upon him formidable enmities which embittered the closing years of his life. These essays are negative and regard all positive creeds as human devices.

His wife died in giving birth to his first child, who died with her. This terrible blow completely prostrated him; his spirits sank, and he became weary of existence. His theological conflicts alone afforded him a certain amount of relief; and it was in his desperate struggle with what he considered intolerance that he developed his greatest energy, and the richest resources of his intellect. Worn out in mind and body, he ended his great career at the age of fifty-two, dying so poor that his patron, the Duke of Brunswick, had to defray the expenses of his funeral.

Lessing has had many biographers. One of the most recent and the most accomplished, Miss Helen Zimmern, remarks that he was a man in whom two ages, two opposed tendencies of thought, were combined in unique harmony. He exhibited in his person all the good elements of the eighteenth century, while he became the pioneer of the new. It was his peculiar characteristic to be at the same time the representative of his own and of a succeeding generation. For while the eighteenth century was negative and destructive, the nineteenth is affirmative and constructive: Lessing is both. He anticipated the nineteenth century in its tendency to return to the past, and its endeavours to disengage primitive truth from the disfiguring accretions of later ages. In this respect he presents a remarkable contrast to Voltaire: a contrast wholly to his advantage. In art, in religion, he helped towards the liberation of mankind from the shackles of mere tradition and authority as such. while he destroyed, he built; he did not use the thin weapons of persiflage to undermine both good and bad together, and leave his fellows shelterless. Hence it is that Lessing may lay claim to be the intellectual pioneer of our present culture. There are few departments of thought into which he did not penetrate, and none into which he penetrated without leaving the impress of his genius behind him. So varied and catholic were his interests, that to many he is only known as a theologian, to others as an æsthetician, to others again as a dramatist, poet, critic, or philologist. In one point only he did not free himself from a characteristic defect of his age; and this was his indifference to the beauty and significance of Nature. In this respect alone he cannot be ranked as a precursor of Goethe, whom he anticipated in his attachment to the Greeks, to Shakspeare, and Spinoza.

CHRONOLOGY.

A.D.		Age	1 A.D. Ag	zе
1729	Born at Kamentz.			
1746	Studied at Leipzig	17	1766 "Laocoon" 3	37
	Took M.A. degree at Witten-		1767 "Minna von Barnhelm" 3	38
	berg; went to Berlin	24	1770 Keeper of Wolfenbüttel Li-	
1754	" Pope als Metaphysiker" .		brary 4	
1755	"Miss Sara Sampson"	26	1772 Visited Italy 4	
			1779 "Nathan" 5	0
	senschaften"	28	1780 "Die Erziehung des Men-	
1759	"Litteratur-Brief"	30	schengeschlechts" 5	1
	Secretary to Prussian general		1781 Died at Brunswick 5	
	at Breslau	31		

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GIBBON.

A.D. 1737-1794.

GREATEST MODERN HISTORIAN.

EDWARD GIBBON, the greatest of English historians, was born at Putney, near London, in 1737. He was an extremely sickly child, and owed his life to the care of a maiden aunt. Ill-health interrupted his education till his fifteenth year, when a change for the better took place, and permitted his father to send him to Oxford, where he studied little, however. Already he had read many historical works. "Simon Ockley," he says, "first opened my eyes, and I was led from one book to another till I had ranged round the circle of Oriental history. Before I was sixteen I had exhausted all that could be learned in English of the Arabs and Persians, the Tartars and Turks, and the same ardour urged me to guess at the French of d'Herbelot, and to construe the barbarous Latin of Pocock's 'Abulfaragius.'" As the next step after reading

history, he attempted to write it, and began, at fifteen, the chronology of the age of Sesostris, which, it is needless to say, was never finished.

The most noteworthy event in his Oxford career was his conversion, before the end of the first year, to the Catholic religion, through reading Middleton's "Free Inquiry" and Bossuet's "Variations of Protestantism." Obliged to leave college on this account, it was feared he would become a priest, and his father sent him to Lausanne, in Switzerland, as the pupil of a Protestant elergyman. He studied diligently, became proficient in French and Latin, and by a regular course of "discussions, arguments, and judicious reading," he recovered from the Catholic fever, only to relapse, like Bayle, from the profound study of two religions into the condition of a sceptic. During this time he had fallen in love with the daughter of a Calvinist minister, the future Madame Necker. His father would not hear of this "strange alliance," and "after a painful struggle," says Gibbon, "I sighed as a lover, but obeyed as a son."

He returned home in 1758, and shortly after published an "Essay on the Study of Literature," which was favourably received in Paris, and also began the formation of his famous library of 7000 volumes, his "Seraglio," so useful to him in after years. For more than two years he served as captain in the Hampshire militia, at the time of the French Invasion panic. This active life improved his health, he says, made him an Englishman and a soldier, and corrected the effect of long foreign residence and solitary studies. He found time when off duty to read Horace and review his studies.

He had formed many projects for future historical works. Several subjects had been thought of, and some even commenced. He had pitched upon the expedition of Charles VIII. of France; then the crusade of Richard I. had appeared attractive. To these in turn succeeded the history of Edward the Black Prince, Sir Philip Sidney, and Sir Walter Raleigh. But they were all relinquished, and at last he comes to two conclusions—" first, that his subject must not be English; and, secondly, it must not be narrow."

The danger of a war with France being over, Gibbon set out to visit Paris and Italy; and it was at Rome, in 1764, "seated amidst the ruins of the Capitol, while barefooted friars were singing vespers in the temple of Jupiter," that he resolved to write the "History of the Decline and Fall of the Roman Empire." He returned to England full of his idea, but it was not till after the death of his father in 1770 that he could set himself seriously to work. He settled the estate, moved to London, and began to write, the first volume appearing in 1776, the same year which saw a new empire born in the West.

The publication of the volume created a great sensation, and Gibbon found his reputation established amidst universal applause. Itt vast

plan so well conceived, and executed in polished and elegant style, gave the work a rapid and brilliant success. Even those who might with justice be considered his rivals—Robertson, Ferguson, and Hume—sent him warm congratulations.

Gibbon had in 1774 become a member of Parliament under Lord North's administration, but as, according to his own account, he had entered upon a public career "without patriotism and without ambition," he proved but an indifferent politician; and when in 1782 Lord North resigned, he retired to Lausanne to lead a more retired life. Here, in a charming house on the borders of Lake Geneva, he terminated his great history in 1787, and immediately started for England to arrange for its publication.

The spring of 1788 saw him again settled at Lausanne, where he resided till 1793, when he resolved on another visit to England, this time to comfort his old friend Holroyd, who had lost his wife. Though Gibbon was now feeble in health, and corpulent to an extraordinary degree, the fatigue and dangers even of the journey were nothing to the affection he felt for his bereaved friends, and he hastened to mingle his tears with theirs. He arrived after a rapid journey in his usual health, but at the end of six months Edward Gibbon was no more. He died in the fifty-seventh year of his age, of dropsy, from which he had suffered for thirty-two years.

Cotter Morrison, in his recent life of Gibbon, thus speaks of his work :-"The sudden and rapid expansion of historic studies in the middle of the eighteenth century constitutes one of the great epochs of literature. Up to the year 1750 no great historical work had appeared in any modern language. The instances that seem to make against this remark will be found to confirm it. They consist of memoirs, contemporary documents, in short, materials for history, but not history itself. Excellent as were the Scotch historians- Hume, in style nearly perfect; Robertson, admirable for gravity and shrewd sense—they left much to be desired. It is not doing them injustice to say that these eminent men were a sort of modern Livies, chiefly occupied with the rhetorical part of their work, and not over-inclined to waste their time in ungrateful digging in the deep mines of historic lore. Obviously the place was open for a writer who should unite all the broad spirit of comprehensive survey with the thorough and minute patience of a Benedictine, whose subject, mellowed by long brooding, should have sought him rather than he it; whose whole previous course of study had been an unconscious preparation for one great effort which was to fill his life. sat down to write his book, the man had been found who united these difficult conditions.

"The decline and fall of Rome is the greatest event in history. It occupied a larger portion of the earth's surface, it affected the lives and

fortunes of a larger number of human beings than any other revolution on record. For it was essentially one, though it had for its theatre the civilized world. Great revolutions and catastrophes happened before it and have happened since, but nothing which can compare with it in volume and mere size. Nor was it less morally. The destruction of Rome was not only the destruction of an empire, it was the destruction of a phase of human thought, of a system of human beliefs, of morals, politics, civilization, as all these had existed in the world for ages.

"The book is such a marvel of knowledge at once wide and minute, that even now, after numbers of labourers have gone over the same ground, with only special objects in view, small segments of the great circle which Gibbon fills alone, his word is still one of the weightiest that can be quoted. Modern research has unquestionably opened out points of view to which he did not attain, but when it comes to close investigation, we rarely fail to find that he has seen it, dropped some pregnant hint about it, more valuable than the dissertations of other men. As Mr. Freeman says, 'Whatever else is read, Gibbon must be read too.'"

CHRONOLOGY.

A.D.		Age	A.D	Age
1737	Born at Putney.		1764 Visited France and Rome.	. 27
1749	At Westminster School	. 12	1774 M.P. for Liskeard	. 37
1752	Entered Oxford	. 15	1776 First volume of "Decline and	1
1753	Abjures Protestantism	. 16	Fall "	. 39
1754	Reconverted at Lausanne.	. 17	1783 Went to Lausanne to reside	. 46
1760-	-63 Captain in Hampshire mi-		1788 "Decline and Fall" finished	. 51
	litia 2	3-26	1794 Died in London	. 57

BOOK VI.

Science.

MATHEMATICIANS-PHYSICIANS-NATURALISTS.

INTRODUCTION.

It is instructive to revert to the modes of thought and of perception that were prevalent in ancient times; but unexpected difficulties immediately present themselves in any such attempt. Many things that we have known and understood from our earliest childhood, apparently without aid or suggestion from without, and which, therefore, appear to us to be quite simple, and indeed self-evident, we are astonished to discover were unknown and unperceived by the leading men of the most intelligent nations of antiquity. It thus becomes evident that we are indebted, to a much greater extent than is usually admitted, to the labours of past generations.

Thoughts like these crowd upon the mind when we look back on the history of Science. Nothing is simpler than that method of investigation which, after many erroneous paths had been successively pursued, is now adopted in every scientific research. This method, usually termed the *inductive method*, is in fact only the procedure which the healthy human understanding is accustomed to employ in the practical operations of daily life without special instruction, and unmistakable traces of the application of which may be observed in any of the more intelligent animals. We endeavour by experiment to ascertain how the things by which we are surrounded behave under various circumstances; and, in particular, how far and in what way we are able to influence them; and we anticipate that, under new conditions, the course of events will be similar to that observed in all previous cases of a sufficiently similar nature. The difference between scientific investigation and ordinary inquiry lies in the circumstance that in the latter case we

merely observe the facts presented to us, and are satisfied with the slowly fading impressions of the past as they may linger in our memory, whilst the only means by which we form an estimate of quantitative and qualitative differences is derived from the mode and intensity of the sensorial impressions that have been made upon our mind.

In scientific research, on the other hand, we endeavour, so far as may be practicable, to obtain a complete knowledge of particular instances, and to ascertain clearly the variations to which they are liable, whilst at the same time we observe whether these variations are spontaneous or can be intentionally or experimentally produced. We then seek to define with clearness and precision the conditions upon which each variation depends; whether a certain effect follows a supposed cause or fails to appear, and if it appear, to what degree or amount; in fine, we continue our inquiries until we are able to anticipate the result in every future case of a similar nature. We endeavour thus to obtain accurate conceptions, to fix them by oral and written description, and at the same time to expand and develop our knowledge of each particular by comparing it with the statements of our contemporaries and prodecessors. We are thus certain that every deviation from a law supposed to be correct will arouse attention in proportion to the belief in the accuracy of that law. The results already obtained by scientific inquiry are thus subjected to constant control in regard to their accuracy, and are always amenable to improvement. But all this is, in point of fact, nothing else but an extremely careful and consequent performance of that which an intelligent man is accustomed to execute without scientific training in the performance of the most ordinary acts of everyday life.

It is not surprising that by the tyro in science the effort of the mind is held to be greater in proportion as the laws which he understands and can apply are more comprehensive and exact. The general principles of Mechanics in their abstract mathematical form appear, no doubt, to be far enough removed from the simplicity of popular laws derived from simple experience. They constitute the magic spell by whose aid the moderns have compelled the opposing forces of Nature to submit to their control; yet they have undoubtedly been acquired in the same way as the minor appliances and handy inventions of the household and of the workshop.

That the ancients possessed less scientific knowledge than we who inherit what they acquired need not surprise us. We should rather wonder that in many instances they should have been acquainted with so much than be surprised at their knowing so little. But what never ceases to excite our astonishment is, that these nations who, in the formation of their language, in their laws and in their general polity, in the writing of history, and in the philosophical discussion of abstract

ideas, stand no whit behind us—who were, moreover, in many branches of art decidedly our superiors—should exhibit so remarkable an incapacity of discovering the correct mode of solving scientific problems, and even of perceiving the more important questions that arise. We seem to feel that the method which has ultimately yielded so rich a harvest to us, appeared to them too simple and uncomplicated to excite hope, and that they believed they could obtain superior results by deep cogitation and mental exertion.

That they were not wanting in that faculty of observing the phenomena around us which I have already termed common-sense without scientific training, I need scarcely demonstrate. That faculty is nearly allied to Art and the power of representing characteristic types in an artistic manner; for such types represent order and law. A remarkable example of such artistic, rather than scientific exposition, is exhibited in the works of Hippocrates. He attempted to discover and describe the order and mode in which the course and distribution of disease occur, and he thus constitutes the first example of order, or classification, in a department of knowledge in which the separation of the various co-operating causes is undeniably the most difficult of all. He was not, however, entirely destitute of scientific training. A fair amount of sound medical knowledge was already possessed by the school of the Asclepiads, with which he appears to have been acquainted; so that, in point of fact, he knew what there was to be known in his time. But in forming an estimate of him, it is clear that Hippocrates is a great physician, not on account of his theoretical knowledge, but in spite of it. He refers to his theories only when they agree with his facts; when they do not, he passes them over in silence. His pupils and successors, however, who were defective in the essential point of his character, namely, his extraordinary talent of observation, sought for his greatness exactly where he was weakest, that is, in his theories, and drew from them deductions which, whilst they did not attempt to substantiate by facts, they nevertheless considered to be true. The same thing has always occurred whenever a great master of observation, has arisen, and may be regarded as a characteristic sign of a step in the progress of knowledge, and as showing that science had not yet arrived at a clear perception of the true principles by which it should be guided.

The Greeks undoubtedly made the first steps towards the discovery of these principles. In those sciences which rest on observation Aristotle rightly saw that it was necessary to obtain, in the first instance, as general and complete a view as possible of the facts, and to collect the experience of preceding ages; and he exerted himself to accomplish this in Natural History, and in part also in the Physical Sciences, just as Galen did in the case of Medicine. Both of these masters exhibited remarkable penetration and sound judgment. In a similar way Socrates

and Aristotle traced correctly the first lines of the theory of consciousness; the former by pointing out and giving examples of the importance, in a scientific point of view, of sharply defined conceptions illustrated by examples; the latter by developing the true principles of the deductive method, namely, the development of consequences from admitted data. The progress made by both in this direction produced a profound impression on their contemporaries and excited unreasonable expectations. It is scarcely possible for us to conceive a condition of mind in which ordinary logical propositions constituted new and surprising feats of mental insight; whilst at the same time it may be freely admitted, that no slight effort at abstraction was required to clothe them in clear and definite language for the first time.

The deductive method is most appropriately employed when accurate and sufficiently numerous data have been obtained, from which conclusions in regard to special cases may be drawn. This was only accomplished by the ancients in the case of one subject, that, namely, of Geometry, which it appears was first worked out with practical objects in view by the Egyptians, from whom it was borrowed by Pythagoras, who again taught it to the Greeks, being ultimately worked up into a very perfect scientific form by Euclid. I have elsewhere endeavoured to show that the axioms of Geometry, those general propositions from which all the others may be deduced, were really drawn from experience, and were not created by the exercise of pure reason. It may be added, that a few physical laws, in a limited sense, were actually known to the ancients. Pythagoras was acquainted with the simple relations that the length of strings bear to consonant musical intervals. Archimedes knew the laws which govern the reflection of light, and many of the laws of Statics; for example, those of the balance, of the lever, and of the weight of heavy bodies immersed in fluids. He founded on his knowledge of the last the methods which are still employed to determine specific gravity. Hero, again, knew the effects of pressure of the air; and Claudius Ptolemaeus the laws of the refraction of light in the air.

Mankind early acquired a tolerably exact knowledge of the apparent motions of the sun, moon, planets, and fixed stars in the heavens. In this knowledge the Greeks were preceded by the Egyptians and Babylonians. The calendar for the estimate of civil time underwent gradual but constant improvement, and was made to agree with the movements of the sun and moon. Astronomical researches were peculiarly adapted, in the exact and unchangeable regularity they showed to exist in the mighty operations of Nature, to conduct the mind of man to seek for perpetual order; but the laws which it was desired to formulate referred, in the first instance, only to the apparent movements of the celestial bodies.

But even if it be admitted that some representation or conception of

the true nature of the motion of the earth around the sun has occasionally arisen, neither in the astronomy of the ancients, nor in the musical observations of Pythagoras, nor in the medical knowledge of Hippocrates, is there the slightest trace of an intelligent comprehension of the mechanics of these phenomena. In the Middle Ages a long period followed of mental imbecility, of over-estimation of the deductive methods, and of the authority of the old masters, especially of Aristotle and of Hippocrates. The first reawakening of independent inquiry exhibited itself in a severe contest against the old authorities, which was conducted by Copernicus in Astronomy, by Vesalius in Anatomy, and by Harvey in Physiology.

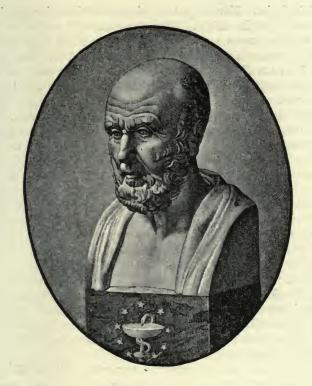
Progress was first made in the science of Astronomy. The regularity of the movements of the planets appeared wonderfully more simple and intelligible after Copernicus taught that the sun must be regarded as the fixed central point of the system; and after Kepler demonstrated the regularly elliptical form of the path of each planet, and the simple laws which determine the rapidity of its movement in its orbit. The decisive step was, however, made by Galileo and by Newton, when they developed in its true significance the conception of motion. The former adduced examples of terrestrial gravity; but his conception was still material, since he compared the effect of a continuously operating moving force to a series of small impulses succeeding one another at short intervals. Newton was in a position, with the aid of the better defined and novel ideas of differential calculus, to define force in a conceivable and quite distinct form, and to show that, however various it might be in amount and direction, it was always the product of the mass of the body multiplied into its velocity. This definition, when applied to the planetary motions, referred their complicated phenomena to the extremely simple law of the general attraction of all material substances to each other; and thus gave the most brilliant and imposing example of the simple and strict orderliness of Nature, whilst it constituted also an example of the object for which science should strive. The law of gravitation not only enabled a coarsely approximative estimate of the position and rapidity of each planet to be obtained, but showed that these were actually in accordance with the most delicate measurements of time and space. That which was still defective was the means of exactly estimating the so-called disturbances exerted by the planets upon each other, owing to their varied and mutual attraction. This problem was essentially solved by Laplace. What was required by theory was corroborated by subsequent observation.

The complete application of the above-mentioned mechanical principles was materially furthered by the coincident development of Mathematics, and especially the analytical geometry of Descartes, in which all geometric problems were made problems of calculus; and also by the method of analysis developed by Liebnitz and Newton, that is to say, calculations with continuously changing amounts.

The final and most recondite causes of natural phenomena had long been characterized as forces; these forces were regarded as inherent to matter, as persistent and permanently active. In the doctrine of the composition of forces acting on a single point, which existed before Galileo, and was developed by him, the independency of each force, and its distinctness from other coincidentally present forces, were clearly recognized. But force was still always regarded as a hypothetic abstraction. The great advance contained in the explanation given by Galileo and by Newton was, that the term force acquired the significance of something capable of being observed; the acceleration of movement, that is, the variation per second, equalling the velocity multiplied into the mass of the body moved. When Newton considered force to be dependent on the distance separating bodies, he expressed an invariable relation of observable facts. The acceleration of the movement of both bodies, on the other hand, he showed to be dependent upon their position. It soon appeared that the whole of Mechanics, as well as Dynamics, could be developed from these principles; and Newton's law of gravita-tion was the type in accordance with which explanations were given in all other branches of Physics. Electro-dynamics has, however, recently presented problems which cannot be referred to this scheme.

As it is the aim of natural science to discover the invariable amidst the variable, the development of our conception of force and of the laws of phenomena, over which it exerts control, progress only in one direction. The problem still remains to discover the indestructible, i.e. those materials endowed with unalterable force, which we now term "chemical elements." That this problem existed was clearly seen also by the ancients; but their endeavours to solve it served only to show how far removed they were from the right method of investigation. Their four elements were products of an hypothesis which only took into consideration the most striking differences of outward appearance, and was never attempted to be definitely proved. Such proof commenced, though it was not conducted by them with a strictly scientific object in view, with the alchemists of the Middle Ages. The question whether gold could be made from other substances was synonymous with the question whether there are elementary substances capable of being transmuted into each other. That the elements are only discoverable by experiment, and that their weight is invariable, was first distinctly expressed by R. Boyle (1627-1691); but ignorance of the nature of gases and the associated difficulty of the theory of combustion delayed for a century the correct application of this principle. Lavoisier then, basing his views on Priestley's discovery of oxygen, and upon the proof furnished by H. Cavendish, that water was produced by the burning of hydrogen, clearly recognized the part played by oxygen in combustion, and supported his new system by evidence that the weight of none of the substances he admitted to be elements underwent change, either in entering into or separating from a chemical combination. The main questions were in this way essentially decided. The sciences which deal with living organisms accept the physical and chemical theories of the present time; but the problems with which they have to deal appeared, in the first instance, to be too complicated and too difficult to enable their principal questions to be solved by these means. It has only quite recently turned out otherwise. This development is, however, so recent that no historical details respecting it can be given.

H. HELMHOLTZ.



HIPPOCRATES.

460?-357? B.C.

THE FATHER OF MEDICINE.

The art of healing, it is obvious, must have been in its origin coeval, or nearly so, in some rude form, with the earliest human need of its exercise. Such a phrase as "the Father of Medicine" without explanation is therefore misleading. It must of course be accepted cum grano, as we say. The fact is that long before the age of Hippocrates, the practice of medicine had made large advances from the condition of primitive rudeness which we are compelled to assume. It had become in Greece the business of a special and numerous class, the Asclepiadæ, a priestly class, who carefully kept their own secrets from profane understandings, and handed them down from father to son. They were scattered in small bands all over Greece, but had their headquarters at Epidaurus, on the coast of Argolis, where stood the principal temple of

their god Asclepios. Homer speaks of him as the "blameless physician," and says nothing of his origin. After-times venerated him as the son of Apollo; and the human personality was hopelessly lost in the clouds of myth and legend which gradually gathered around it. One of the offshoots from the Epidaurian temple and group of priests, was to be found in the small island of Cos, a gem of the Ægean; and here was born the great master, of a family who practised the healing art for several centuries, some members of it attaining a great reputation.

For the story of his life, we have, unfortunately, no contemporary or even trustworthy authority. We can, therefore, only tell the tale as it

is usually told, without saying how the truth may be.

Hippocrates was born about 460 B.C. (Ol. 80, 1), the year of the birth of Democritus. He lived in the greatest age of Greece, and was contemporary with Herodotus, Socrates, Thucydides, Plato, Æschylus, Phidias, and their compeers. His education was not confined to professional subjects, but embraced logic, physics, geometry, and even philosophy and rhetoric, which he studied under Gorgias. He spent many years in travelling, especially in Macedonia, Thrace, and Thessaly, investigating the virtues of "simples" and the action of remedies in the treatment of disease. He visited the temple of Diana at Ephesus, and transcribed the medical registers or records preserved there. It was customary to keep accounts of the maladies of those who resorted to the temples of health, and of the remedies which had been effectual. These records formed the quasi-medical literature of the time.

The reputation of Hippocrates grew to a great height. Kings and nations coveted the presence of so mighty a healer and helper. Perdiceas II. of Macedonia consulted him; Artaxerxes of Persia offered him immense gifts, money and towns, for his services; the Illyrians summoned him to save them from pestilence; the Abderites called him to see their "mad" philosopher Democritus, whom he found to be the sanest man among them; and the Athenians voted him a crown of gold, maintenance for him and his descendants at the Prytaneum, and initiation into their mysteries, seldom given to foreigners. Hippocrates did not care for gifts. He declined the invitation of the Persian king, and the remuneration offered by the Abderites. He prayed the gods to give him, not money, not pleasures, but a long life, with good health, success in his art, and a lasting fame. His desire was fulfilled, and the nations have given

"Eternal honour to his name."

Dante, it is worth noting, has placed him in the first circle (Limbo) of his "Inferno," among the wise and good of old, the "souls of mighty worth" who lacked nothing but the rite of baptism for admission to the paradise.

Hippocrates is depicted to us as a man of great bodily vigour, with

capacity of immense labour without injury; and of astonishing power and penetration of mind, so that he never despaired of conquering the toughest problems in his science by persistent endeavour. He lived to a great age, variously stated at 85, 90, 104, and 109 years, and died at Larissa, in Thessaly.

With Hippocrates and his race, the Asclepiadæ, is associated the great revolution by which the priestly monopoly of the practice of medicine was broken up, and the pursuit of it was thrown open to all who desired it. This is shown by a clause in the "Oath" exacted of his pupils, one of the pieces most certainly genuine among the writings attributed to him. To the same end, the opening of knowledge to all, he wrote his medical works, the earliest that have come down to us, and which, after all the advances made through two thousand years, are still studied with reverence. In his writings medical science appears at a height of development for which nothing that we know of its earlier state furnishes adequate explanation. On such grounds as these firmly rests his claim to the title which the ages have awarded him, of "Father of Medicine." In the long process of development of medical science, his teaching forms one of the greatest forces. He summed up in himself all that was known before, added immensely to the store by his own study and practice, and so handed on an almost newly constituted science to those who came after him.

Among the most noteworthy features of his practice and teaching are the following. He paid special attention to the observation of symptoms in disease, both those precedent and those concurrent (prognosis and diagnosis); and in acuteness of observation and accuracy of description he has never been surpassed. Most of the forms of disease which he described and named still bear the names he gave them. He held the four humours (or fluids) of the body to be the original seat of disease; health depending on a due proportion and proper quality of these humours. He taught also that there is a relation between them and the four seasons of the year. This doctrine of the "humours," accepted and extended by Galen, held its ground for more than thirteen centuries, and traces of it still remain in our common speech. Hippocrates was the first to insist upon the important influence of diet, and would frequently trust to its regulation as the sole remedy in disease, especially where the constitution was strong. He had a firm faith in the restorative tendency of nature (vis medicatrix natura). There is no evidence that he knew of the pulse as an indication of states of the body. He was the first to treat anatomy as a science, although there is no evidence and little probability that he practised dissection of human subjects. He was well versed in surgery, had much skill in dealing with fractures, and practised all the operations known in his time, except lithotomy. This appears to have been left for some reason to other hands than physicians. He discontinued the superstitious method, in vogue up to his time, of treating some cases by action on the imagination, and confined himself to rational methods. He greatly enlarged the *Materia Medica* of his time; three hundred articles being mentioned in his writings. But it is difficult now to understand in some cases the accounts left of his medical preparations. Hippocrates was more than a great physician; he was a philosopher and a great man. Scattered through his works are abundant proofs of this, in weighty axioms, acute observations, and pithy sayings. Our hackneyed quotation, "Life is short, Art is long," first appears in literature as part of his first aphorism.

Of the numerous pieces which have come down to us under his name, hardly a fourth are admitted as genuine. Attempts to distinguish these began to be made at an early period. Editions of the whole or of separate portions, and translations into various languages are almost numberless, and the commentaries upon them make a formidable mass of literature. A complete German translation, by Grimm, appeared in 4 vols. 8vo, between 1781-92. A complete French edition, with translation, introduction, medical commentaries, and philological notes, by M. Littré, was published in 10 vols. 8vo, between 1839-61. This elaborate and scholarly work is at present unrivalled. In 1849 an English translation of the gennine works, by Adams, with a preliminary discourse and introductions, in 2 vols. 8vo, was published by the Sydenham Society.



ARCHIMEDES.

287-212 в.с.

FOUNDER OF PHYSICS.

The preservation and transmission of ancient books, through all the destructive revolutions that have swept over empires and nations, is one of the most astonishing facts in the history of the human race. All the more astonishing when we consider that they existed only in the frail form of manuscripts, and that the number of persons seriously interested in most of them and concerned about their safety was really very limited. Many, indeed, have perished. But the wonder is not that some of these "ships of time," as Bacon calls them, laden with priceless treasures of truth and wisdom, fit for the nourishment and the healing of the peoples, should have gone down to the unsearchable abysses, but that so many have escaped, and after voyages of millennial duration have found at last safe havens.

Terrible was the risk to accumulated treasures of this kind when the city of Constantine, the new Rome, a centre of civilization and literary culture, at length fell into the hands of the Turks. But Greek scholars had already begun to resort to the seats of reviving culture in the great cities of Italy; and in their enforced final flight they carried with them such of the precious manuscripts of old as they could snatch from impending destruction. Among these treasures thus carried to Italy were the writings of Archimedes, the greatest name among ancient geometricians. Copies of them falling into the hands of Regiomontanus, he took them to Germany; and, printing having meanwhile been invented, the editio princeps of Archimedes was published at Basel, in Greek and Latin, in 1544. This was followed within the next 150 years by editions at Paris, Venice, Messina, Palermo, and London. And these were all surpassed by the first complete and most splendid edition, the folio of Torelli, printed at the Clarendon Press in 1792. The sight of this folio may well call to mind the reply which Archimedes made to Hiero, when asked if he could not make these things easier: "There is no royal road to geometry." The greatness of Archimedes, like that of Newton, is of a kind which lies beyond the apprehension of more than a very few minds in each generation.

He was born at Syracuse 287 B.C. (Ol. 123, 2), a few years before the death of his greatest predecessor, Euclid. On his father's side he was related to Hiero II., King of Syracuse; but his mother was of an obscure family. His ruling passion revealed itself in his youth, in earnest absorbing devotion to the study of geometry. He was a follower of Plato in philosophy, and, like him, set the research of truth far above the pursuit of gain or any profit to the mere outward life. While men praised him without stint on account of his marvellous mechanical inventions, he thought lightly of these, felt almost ashamed of them, called them trifles and playthings, in comparison with those lofty farreaching speculations in the sphere of pure intellect in which he delighted, and in which he was grandly alone; herein presenting a contrast to Bacon, who valued the study of geometry only for its practical applications. is said to have travelled in Egypt and in other countries before finally settling at his native place. In Egypt he invented the screw bearing his name for drawing off water, now called by the Germans the "watersnail." He is said also to have applied a screw to the purposes of naviga-

To him we owe the discovery of the principle that a body plunged into a fluid loses weight equal to that of the fluid displaced. With this discovery is connected the story of the golden crown made for Hiero, which he suspected to be alloyed with silver. The test for gravity occurred to Archimedes while at the bath, and with irrepressible joy he rushed to his home, forgetting to dress, and shouting "I have found it"

(Eureka). One of his most remarkable achievements was the construction of a sphere to exhibit the movements of the heavens, a quasi-orrery. This is noticed by Claudian in a striking passage of his poems, and also by Silius Italicus and Ovid. He made a very near approach to a precise determination of the ratio between the diameter and the circumference of a circle; determined the relation between a circle and an ellipse, and the proportion between the solid contents of a sphere and of a cylinder circumscribed. He devoted much attention to the mensuration of conic sections, expressed his familiarity with the power of the lever in the saying, "Give me a standing place and I will move the earth itself;" and among the engines which he devised for the defence of Syracuse, when besieged by the Romans under Marcellus, were burning glasses by which to set the enemy's ships on fire. It is most likely that there is much exaggeration in the traditional accounts of his machines at this siege; he wrote none himself, and it is certain that we find no mention of the burning mirrors before Tzetzes, who lived fourteen centuries later. Buffon, to test the possibility of such action, constructed in 1747 a burning mirror, with which he could set fire to wood, or melt lead, at considerable distances. Archimedes is the only ancient writer who has left anything satisfactory on the theory of Mechanics and on Hydrostatics. These subjects are treated in his works on centres of gravity of lines and planes, and on the equilibrium of bodies plunged in a fluid. Even the germs of the calculus are found in his speculations.

The rare faculty possessed by Archimedes of solving hard problems had given rise, in the time of Cicero, to the phrase, "Archimedean problem," in the sense of enormously difficult. To measure and appreciate the greatness and achievements of Archimedes it is necessary to have exact knowledge of the state of his science before his time. Nothing remains to us but Euclid, with some fragments of his commentators, and a solitary work of Pappus. Leibnitz, with adequate intelligence, says: "Those who have attained to the power of comprehending Archimedes will be less astonished at the discoveries of modern men."

When Syracuse was besieged by Marcellus (214 B.C.) so efficient were the services rendered by the great thinker and inventor, Archimedes, that the operations of the attack were wholly frustrated, and the siege was converted into a blockade. The city held out for two years, and was taken in 212. Archimedes was among the slain. The accounts of his death vary in detail, but agree in the essential fact, that, while absorbed in his mathematical studies, he was surprised and killed by a Roman soldier. Marcellus had given particular orders to spare him and his house, but in vain.

On the monument erected to him in the burial place was cut, by his own desire, the figure of a sphere with a cylinder circumscribed, and a record of the proportion between the contents of the two. Less than a

hundred and forty years had passed when Cicero, a young man and enthusiastic student, held his first public office, the quæstorship, in Sicily. Before leaving the island he wished to see the tomb of Archimedes. It was already forgotten. The magistrates knew nothing about it. They led the eager inquirer to the old burial place, and allowed him to search. He soon detected in a spot overgrown with briars a small column bearing the figure of the sphere and cylinder, with the inscription partly illegible. "This," said he, "is what I was looking for. And this noble and once learned city had known nothing of the monument of its greatest citizen if it had not been discovered to them by a native of Arpinum." A noteworthy illustration of Crabbe's reflection—

[&]quot;And monuments themselves memorials need."



GALEN.
A.D. 130-200 (?)

ANATOMICAL SCIENCE.

Manifold is the interest attaching to the old city of Pergamos in Asia Minor. Its origin lost in mythical remoteness of time; its singularly lovely situation and environment; its colony of Asclepiads from Epidaurus, which became in the course of centuries one of the most famous of medical schools; its flourishing kingdom, which rose rapidly and maintained itself for a century and a half; its library and school of learning, once rivalling those of Alexandria; its early Christian church, one of the seven addressed by the author of the Apocalypse; the existing remains of its Acropolis, temples, churches, amphitheatre and other buildings (marvellous fragments of its sculptures at this moment exciting the admiration of Europeans); its invention of parchment (Charta Pergamena) as writing material; such claims has Pergamos on the enduring memory of

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men. And one other claim, strongest of all—it was the birthplace of a great man. And while Asclepiads, school, library, temples, fortress, churches were all vanishing or crumbling to dust, the name and fame of Galen rose higher and higher, and, in the sphere of medicine, ruled the civilized world with an authority beyond question for more than twelve centuries.

Galen (Claudius Galenus), after Hippocrates, the greatest of ancient writers on medicine, was born A.D. 130. He was the son of Nikon, an architect and mathematician, wealthy, honoured, and of cultivated mind. His mother is less favourably portrayed. She is said to have been a Trained at first for a philosopher, his course was altered in his seventeenth year, and he began the special study of medicine under teachers in his native city. After the death of his father (about 149) he set out on a course of studious travel, visiting and making some stay at Smyrna and at Alexandria, then the seat of the best medical school in the world. Returning to Pergamos (158) he was at once appointed physician to the school of gladiators. After practising there for several years he went to Rome. In the imperial city his rare skill in anatomy and some remarkable cures which he effected ensured him high distinction; and also brought upon him a storm of jealousies, envies, and ill will from those whose credit and emoluments were imperilled. Galen was ridiculed as a theorist (not altogether without reason), was accused of magic (he thought much of amulets and dreams), and was called utterer of paradoxes and worker of wonders. He is said to have carried himself with offensive vanity and infinite scorn. Considering the usual position of genius among the dunces, this is not much to be wondered at. It is, however, clear that Galen had not the simple greatness of his master Hippocrates; did not equal him in reverent regard for facts, but was anxious at all cost to shine; and of things which he did not really understand would sometimes give hypothetical explanations.

He was at Rome on this first occasion about four years: and he had no sooner returned to Pergamos than he was summoned to attend the emperors Marcus Aurelius and Lucius Verus at Aquileia. Driven thence by the plague, Galen accompanied the emperors to Rome (170). He was charged with the care of the young Commodus, and remained at Rome for some time. Dates are unobtainable; but it is known that he attended M. Aurelius, his son, and Severus, and that at Rome he lectured and wrote some of his most important works. He appears to have gone once more to Pergamos; but where he died, and when, is unknown. He is stated by Suidas to have lived to the age of seventy, which would fix his death to the year 200; and by Abulfaragius to have lived to the age of eighty, thus dying in 210.

Galen wrote in Greek, with all the dialects of which he was familiar. He was also acquainted with the Latin, Ethiopic, and Persian languages. It is stated that his medical treatises numbered 500, and that his works on philosophy, logic, &c., numbered about half as many. Of the published treatises eighty-three are recognized as genuine, nineteen are held to be doubtful, and forty-five certainly spurious. There are, besides these, many volumes of fragments and of notes on Hippocrates. His works were early translated into Arabic, and he became became supreme in the East as well as in the West. Most of his extant works are in Greek, some in Latin, and a few in Arabic. One of the most remarkable proofs of the commanding position of Galen is the fact that all the medical sects which existed before his day disappeared, and after him all were Galenists. Of his supremacy there is a striking instance in English medical history. In the middle of the sixteenth century a physician who dared to question the infallibility of the master was cited before the Royal College of Physicians and compelled to sign a recantation.

Of all Galen's writings the most valued are those on anatomy and physiology; and of these the most important are the treatises "De Anatomicis Administrationibus" and "De Usu Partium Corporis Humani." The latter is especially remarkable for the large knowledge and acuteness of thought displayed in it. In some passages a deep religious feeling shows itself. "In writing these books," he says, "I compose a hymn to the Author of nature. True piety doth not consist in the sacrifice of hecatombs or the burning of a thousand exquisite perfumes in His honour; but in recognition and proclamation of His wisdom, almightiness, and goodness."

In philosophy Galen was an eclectic. He rejected the current Epicureanism, and studied the Stoics, the Academics, and the Peripatetics. He held that a physician ought to be also a philosopher. In medicine he was a follower of Hippocrates, whose chief doctrines he adopted; as, for example, those of the four humours, of critical days, of disease as contrary to nature, the importance of diet, &c. He wrote much clear exposition and sound criticism of his master's teaching. attached much importance to the pulse as an indicator; and on this subject he is the first and highest authority. He made large advances in anatomy; introduced many new terms which have kept their ground; was the first to dissect a great number of muscles and demonstrate their position and direction; and though the subjects of his dissection were. with very rare exceptions, only animals, and chiefly of the ape tribe, his books on anatomy were the best existing between the second and fifteenth centuries. In Materia Medica he was not so good an authority as Dioscorides. His pharmacopæia consisted chiefly of organic substances, and included no chemical preparations. Galen was a persevering observer and collector of facts, and a great master of generalization. He lived a sober and temperate life, was humane in his practice, not respecting persons, but caring as much for the beggar as for the king. There is no evidence that he had much intercourse with the Christians; but in one of his extant fragments he mentions the "sect" and praises their temperate and chaste lives.

The first Latin edition of Galen was published at Venice in 1490, in two vols. folio. The *editio princeps* of the Greek text was the Aldine, at Venice, five vols. folio, in 1525. It has been three times republished, the most recent and best edition being that of Kühn, at Leipzig, twenty vols. 8vo, in 1821-33. An edition of the Greek with a Latin version appeared in Paris, in thirteen vols. folio, in 1639. The commentaries written upon his works are very numerous and voluminous.

Fast bound in the chains of the Galenic system, the science of medicine was for ages paralyzed. There was need of a revolution before a fresh advance in real knowledge was possible. In the fifteenth century came the awakening. Fresh study of the greater ancients was followed by the opening of the recovered Bible. The dreams and investigations of the alchemists were the germs of chemical science; and when the new iatrochemists began their labours, Galenism was doomed. In 1520 Luther burnt the Pope's Bull at Wittenberg, and in 1526 the coarse, drunken Paracelsus began his career of Professor of Physic and Surgery at Basel by burning, in the presence of his pupils, the works of Galen and Avicenna. He called them vain dreams, and invited his pupils to study "the open book of Nature which God's finger had written." In spite of all his faults and errors, "the word of Paracelsus," says the historian, "gives to the century its direction."

CHRONOLOGY.

A.D.		Age	A.D.		Age
130	Born at Pergamos.		170-7 "De Usu Partium,"	&c	
147	Began to study medicine	17	191 "De Libris suis de	Compo)-
158	Established physician at Per-		sitione Medica;"	book	S
	gamos	28	burned		. 61
162	Visited Rome	32	192-3 Delivered lectures .	!	62 - 63
167	Left Rome; visited Aquileia .	37	200 Died		. 70
169	Returned to Rome with M.				
	A	20			



COPERNICUS.

A.D. 1473-1543.

FATHER OF MODERN ASTRONOMY.

NICHOLAS COPERNICUS was a native of Thorn, which, at the time of his birth, formed part of the dominions of the King of Poland. Historians have long discussed the origin of this great man. Some assert that his father was a serf, while others pretend that he was descended from a noble family, as if an illustrious pedigree could, like genius, confer glory and immortality. The truth seems to be that he was of mixed descent. His father was apparently of the Sclavonic race, as he was certainly a Bohemian by country; his mother was an undoubted German. His parents took care that he should receive a first-class education. After studying classics in the college at Thorn, he went, at the age of eighteen, to follow the courses of philosophy and medicine in the University of Cracow. There the lectures of Albert Brudzewski inspired him with a

passion for the science of astronomy, with which his name was destined to be inseparably connected. Through the influence of his uncle Lucas Wasselrode, Bishop of Warmia, he was, at the early age of twenty-two, raised to the dignity of Canon of Frauenburg, a town on the coast, near the mouth of the Vistula, and, having completed the obligatory year of residence, he obtained from the Chapter three years' leave of absence for the purpose of completing in Italy the course of study begun in his native country. Towards the end of 1496 he was enrolled amongst the students at the University of Bologna, where he inscribed his name on the list of the Poles who frequented that famous seat of learning—a circumstance which has been cited as an additional proof that he was not a German. Early in the following year the Ferrarese astronomer, Domenico Maria Novara, had already found in him a zealous assistant in his nightly observations.

The interval between the first arrival of Copernicus in Italy and his final departure from that country was of eight years-from the end of 1496 to that of 1504. But his sojourn was interrupted by two homeward journeys for the purpose mainly of obtaining renewed leave of absence from the Chapter of Frauenburg. The first was in 1499, after the University of Bologna had conferred upon him the degree of Doctor of Laws. Later in the same year he returned to Bologna, accompanied by his brother Andrew; but finding themselves in extremely necessitous circumstances—probably because the pittance which had been bread for one was starvation for two—the brothers repaired to Rome in the jubilee year 1500. There for about ten months Nicholas taught mathematics amid the plaudits of thronging audiences. Again in 1501 both Nicholas and Andrew Copernicus were in Poland, and this time the Chapter of Frauenburg granted them a more prolonged leave for the purpose of studying at Padua. The permission, we are told, was granted the more readily because Nicholas had promised to devote himself to medicine. Thus when, after three years' further study, he finally returned to his native land, he was a doctor in two faculties, as well as a competent classical scholar, a rare mathematician, and the astronomer all the world knows of.

The remainder of his life, which extended to the term allotted to man by the Psalmist, was spent in the little town of Frauenburg, his attention being divided between the duties of his ecclesiastical office and the cultivation of astronomical science. He employed a great portion of his time in works of charity and in giving good advice; he visited the sick poor; he projected the construction of a hydraulic machine to distribute water in all the houses of the town; he occupied himself with the best mode of coining money; and he successfully pleaded the cause of his colleagues in a law-suit brought by the Chapter of Frauenburg against the Knights of the Teutonic Order. In the little cathedral town on the banks of the

Vistula no passion disturbed the peaceful tranquillity of his existence. An enemy of useless conversation he did not seek for praise nor the clamour of glory; independent without pride, content with his lot and content with himself, he was great in obscurity, and, revealing himself only to a small number of chosen disciples, he accomplished a scientific revolution without Europe being aware of the fact during his lifetime.

Copernicus read carefully the explanations which Ptolemy and other ancient astronomers had given of the movements of the sun and planets, but none of their theories satisfied him, because he could not make them agree with what he himself observed. At last, after many years of labour, he came to the conclusion that the real explanation was the one which Aristarchus had given, and which was called the Pythagorean system—namely, that the sun stands still in the centre of our system, and that the earth and other planets revolve round it.

The results of his labours he embodied in a volume which is the foundation of medern astronomy. But he hesitated for a long time to publish the work which has immortalized his name. Persuaded at last by the reiterated solicitations of his friends, especially Cardinal Schomberg and Tidemann Gysius, Bishop of Kulm, he determined, at the age of seventy, to send to the press, at Nuremberg, his "De Revolutionibus Corporum Cœlestium," which had been in preparation for nearly thirty-six years. He directed his pupil Rheticus to revise the proofs, and a few days before his death he had the satisfaction of holding in his failing hands a complete copy of his work.

Copernicus came into the world at that period of revival when the human mind seemed suddenly to wake up after a sleep of ages. That sleep, however, had been apparent and not real, for all the great problems then so eagerly canvassed were not new. More than once they had been put forward by bold thinkers whose utterances were soon stifled by the dominant authority, or failed to find an echo among their contemporaries. As a general rule it may be safely maintained that every revolution openly. accepted has been previously accepted in men's minds. Thus a long time prior to the discovery of America the probable existence of a fourth part of the world had been spoken of, and Copernicus himself was well aware that he was not the first to make the Earth move round the Sun. extraordinary perseverance was required in order to gain a hearing for his theory; and in this respect the recent discovery of the New World was a great help to a revolutionary astronomer. There was now no obstacle to the Earth circulating in space, since it had been demonstrated that it forms, with the ocean, one single globe; that it is not immoderately large, and that there may really exist underneath us inhabitants whose feet are opposed to our own. Yet to no man is granted the power of discovering all truths at once. Copernicus continued to deceive himself, in common with the ancients, in reference to the movements of the planets, and he

made a great error in his theory of what he called the "third movement of the Earth." In spite of these mistakes and shortcomings, Copernicus is the father of those men of genius who have created modern astronomical science; and the name of the Canon of Frauenburg will be ever memorable, because, to cite his own stately language, he placed "the light of the world—the orb which governs the planets in their circulation—upon a royal throne, in the midst of the Temple of Nature." Kepler and Newton penetrated much more deeply into the mysteries of the heavenly bodies, but it was Copernicus who gave them the key; and even at the present day, after their immortal labours, the true explanation of the universe is called the Copernican system.

CHRONOLOGY.

A.D.				Age	A.D. As	ge.
1473	Born at Thorn, Prussi	a.			1530 De Revolutionibus Orbinm	
1497	Settled at Bologna .			24	Cœlestium"	57
1500	At Rome			27	1543 Died	70



KEPLER.

а. D. 1571-1630.

THE LAWS OF CELESTIAL MOTION.

John Kepler, one of the greatest astronomers of all ages, was a native of Magstatt, near the imperial city of Weil, in the duchy of Würtemberg. His parents were Henry Kepler and Catharine Guldenmann, both of noble, though decayed, families. Henry Kepler at the time of his marriage was a petty officer in the Duke of Würtemberg's service; and a few months after the birth of his eldest son John, in 1571, he joined the army then serving in the Netherlands. His wife followed him, leaving their son, then in his fifth year, at Leonberg, under the care of his grandfather. He was a seven-months child, very weak and sickly; and after recovering with difficulty from a severe attack of small-pox, he was sent to school in 1577. Henry Kepler's limited income was still further reduced on his return into Germany the following year in con-

sequence of the absconding of one of his acquaintances for whom he had incautiously become surety. His circumstances were so much narrowed by this misfortune that he was obliged to sell his house and nearly all that he possessed, and for several years he supported his family by keeping a tavern at Elmendingen. This occasioned great interruption to young Kepler's education; he was taken from school and employed in menial services till his twelfth year, when he was again placed in the school at Ehmendingen. In the following year he was again seized with a violent illness so that his life was almost despaired of. In 1586 he was admitted into the monastic school of Maulbronn, where the cost of his education was defrayed by the Duke of Würtemberg.

The three years following his admission to Maulbronn were marked by periodical returns of several of the disorders which had well nigh proved fatal to him in his childhood. During the time some disagreements arose between his parents, in consequence of which his father quitted his home, and soon after died abroad. After his father's departure his mother also quarrelled with her relations, having, we are informed, been treated "with a degree of barbarity by her husband and brother-in-law that was hardly exceeded even by her own perverseness." Notwithstanding these disadvantages Kepler took his degree of Master at Tübingen—with which university the school of Maulbronn was connected—in 1591, attaining the second place in the annual examination.

Two years afterwards the astronomical lectureship at Grätz in Styria became vacant and was offered to Kepler, who was forced to accept this situation by the authority of his professional tutors. In 1597 he married a beautiful and noble lady, who was a widow for the second time, though only twenty-three years of age. The income he derived from his professorship was very small, and as his wife's fortune turned out much less

than he had been led to expect, he was not only annoyed by pecuniary

difficulties, but involved in disputes with his wife's relations.

On the outbreak of the religious persecutions in Styria, Kepler, who was an avowed Protestant, judged it prudent to retire into Hungary. He was soon recalled to Grätz by the States of Styria, but the city was still divided into two factions, and Kepler found his situation very uncomfortable.

In 1599 he went to Prague to assist the distinguished astronomer Tycho Brahé in his researches. His position was not, however, improved. "Everything is uncertain here," he wrote to his friends. "Tycho is an ill tempered man, with whom it is impossible to live." Handsome remuneration had been promised to Kepler, but he experienced much difficulty in procuring payment, and had to extort from Tycho, florin by florin, the means of subsistence. Fortunately for him Tycho died in 1601, and he was soon afterwards appointed principal mathematician to the Emperor Rodolph, with a pension of 1500 florins. He now fixed his residence at Linz. "The pay is good," he writes, "but the exchequer is empty. I

spend my time at the door of the Crown Treasurer and in begging." Kepler was consoled for all these mortifications by the free use which he had from this time of the original observations of Tycho, and the possibility of discovering in them the secret of the planetary movements. In 1611 he lost three children, as well as his wife, who had become first epileptic and then mad.

After the death of Rodolph, his successor, the Emperor Matthias, continued Kepler in the office of Imperial Mathematician, and sent him to the Diet of Ratisbon to assist in the correction of the calendar. The arrears then due to him amounted to 12,000 crowns, and although he travelled in the retinue of the Emperor he was obliged, in order to live, to compose little almanacs containing prognostications. Poverty soon afterwards placed him under the necessity of accepting a chair of mathematics at Linz. There he contracted a second marriage with the beautiful Susanna Reuthinger, by whom he had seven children.

His happiness was of brief duration. The priests of Linz and the Protestant pastors of Würtemberg simultaneously brought against him a charge of heresy, which he had great trouble in rebutting. In 1615 a letter arrived from Kepler's sister imploring the aid of this great man in favour of their mother, who was accused of witchcraft. The suit lasted more than five years. After having vainly demanded in writing the intervention of the Duke of Würtemberg to stop this extraordinary persecution, Kepler journeyed on horseback from Linz to Stuttgart, in order to try the effect of his personal solicitations. In spite of his high renown, he could only succeed in modifying the sentence pronounced on his mother, who was then seventy-five years of age. The judges decided that the executioner should terrify the old woman by showing to her one by one the instruments of torture, explaining to her at the same time their mode of action and the progressive increase of the pain they inflicted. This terrible explanation was made, but the old woman resisted all threats, and wound up with this declaration: "I will say in the midst of the torments that I am a witch, but it will be a lie all the same." Her courage produced such an effect that she was released. Kepler returned to Linz, but his enemies insulted him to such a degree as the son of a witch that he was obliged to leave Austria.

Previously to this, in 1620, Kepler was visited by Sir Henry Wotton, the English Ambassador at Venice, who, finding him oppressed by pecuniary difficulties, urged him to go over to England, where he assured him of a welcome and an honourable reception; but Kepler could not resolve upon the proposed journey, although in his letters he often returned to the consideration of it.

Soon afterwards Albert Wallenstein, Duke of Friedland, a great patron of astrology and one of the most distinguished men of the age, made a most munificent offer to Kepler, who in consequence took up his residence

at Sagan, in Silesia. The duke treated him with liberality and distinction, and by his influence with the Duke of Mecklenburg he obtained for him a professorship in the University of Rostock.

In the frequent journeys on horseback which he made between Sagan and Ratisbon to obtain the arrears of his pay from the Emperor, his health gave way, and he died at the age of fifty-nine. He left at his death twenty-two crowns, one coat, two shirts, and no books except fifty-seven copies of his "Ephemerides" and sixteen copies of his "Rodolphine Tables." His body was buried in St. Peter's churchyard at Ratisbon.

This great man published no fewer than thirty-three separate works. His discoveries in optics, general physics, and geometry are numerous; but his fame rests chiefly on the discovery of three remarkable laws, by which the movements of all the planets are explained. The first of "Kepler's Laws," as they are called, is that planets move round the sun in ellipses or ovals, and not in circles; the second law is that planets describe equal areas about their centre in equal times; and the third law is that the squares of the periodic times of the planets are proportional to the cubes of their distances. Even if Kepler had never turned his attention to the heavens, his optical labours would, as Sir David Brewster justly points out, have given him a high rank amongst the original inquirers of his age; but when we consider him also as the discoverer of the three great laws which bear his name we must assign him a rank next to that of Newton. The history of science does not present us with any discoveries more truly original, or which required for their establishment a more acute and vigorous mind. The speculations of his predecessors afforded him no assistance. From the cumbrous machinery adopted by Copernicus, Kepler passed at one step to an elliptical orbit. with the sun in one of its foei; and from that moment astronomy became a demonstrative science. The splendid discoveries of Newton sprang immediately from those of Kepler, and completed the great chain of truths which constitute the laws of the planetary system. The eccentricity and boldness of Kepler's genius form a striking contrast with the calm intellect and the enduring patience of Newton. The bright spark which the genius of the one elicited was fostered by the sagacity of the other into a steady and enduring flame.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1571	Date of birth.		1606 " De Stellâ Novâ "	35
1591	M.A. at Tübingen	20	1609 "Astronomia Nova"	38
1594	Lecturer on astronomy at		1612 Prof. at Linz; mathematician	
	Grätz	23	to emperor	41
1596	"Prodromus Dissertat. Cos-		1619 "De Cometis;" "Harmonice	
	mograph."	25	Mundi "	48
1601	Assistant to Tycho Brahé .	30	1627 "Tabulæ Rodolphinæ"	56
1602	"De Fundamentis Astrologiae"	31	1630 Died at Ratisbon	59
T/30.1	"Paralinomena ad Vitellionem"	33		



GALILEO.

A.D. 1564-1642.

THE PIONEER OF SCIENCE IN MODERN TIMES.

Among the great men who have contributed to the advance of science there are not many whose lives possess so much interest for the mass of men as that of Galileo. Personalities are the delight of the gossip; truth is the joy of the philosopher. To uncultivated persons a man's "life" means what he outwardly does and what visibly befalls him. To the philosophic and reflective it means what he thinks, what he loves, and learns and teaches. The former hunger for adventures, the latter eagerly watch the growth of a mind. But there are very few lives exclusively of the one kind or the other. "The web of our life is of a mingled yarn." The great man is still a man, and the scientific interest is closely inwoven with the human. This is the case to an unusual degree with Galileo. He was not only the man of science, but he was one of 'the

martyrs of science;" and to this fact is clearly owing the strong hold which his name has gained on the imagination and interest of men in general.

Galileo Galilei was born at Pisa, then a dependency of Florence, on the 18th of February, 1564. It was the year of Shakspeare's birth. Bacon was born three years earlier, Campanella four years later, Kepler seven years later. Copernicus had been dead about twenty years. Descartes, Milton, Spinoza, and Locke were born in the lifetime of Galileo; and Newton was born the same year that Galileo died. The Galilei family were of noble rank. In boyhood Galileo showed great mechanical inventiveness, and also a fondness for literature. He received his early education at the convent of Vallombrosa, near Florence, was trained in Greek and Latin, and acquired a good style. He tasted of monkish logic, was disgusted, and abandoned it. He had some leaning to a monastic life, and entered upon the novitiate; but his father withdrew him, and wished to make him a physician. At seventeen he entered the University of Pisa to study medicine, and attended the lectures of the famous Andrea Cesalpino. His "gifts" were so various that, like Leonardo, he seemed fit to be and to do anything; might be musician, painter, orator, mathematician, mechanician.

As with Pascal, mathematics were forbidden him, lest they should seduce him from his appointed course. But in 1583, in Pisa cathedral, his thoughts wandering from the service, he watched the swinging of a bronze lamp—it still hangs there—and observed that its oscillations, long or short, were made in equal times. This led him, through experiments, to the discovery of the isochronism of the pendulum. The first use he made of it was to apply it to the pulse, and it was named pulsilogia. Long years had to pass before it was applied to clockwork. The same year he accidentally overheard a mathematical lesson given, his native passion was awakened, and Hippocrates and Galen were presently laid aside for Euclid and Archimedes.

In 1586 he left the University without taking a degree. At Florence he lectured on Dante's "Inferno." About the same time he invented and described the hydrostatical balance; and by his work on the centre of gravity in solids acquired the designation of "the Archimedes of his time." His reputation now procured him an introduction to the Grand Duke of Tuscany, and an appointment as lecturer on mathematics at Pisa (1589). During his stay he made experiments in dynamical science, and convinced the Aristotelians against their will of the true law of falling bodies. They could neither refute nor rejoice in him; and his sarcastic style exasperated them. He was hissed at his lectures, and in 1591 he retired to Florence. In the following year he was appointed by the Venetian government to the chair of mathematics at Padua. This post he filled for eighteen years with immense success and popularity.

To this period (1591-1610) belongs a series of inventions and great

discoveries: the proportional compasses, the first thermometer, the telescope, and the swift train of startling disclosures made by the last when first directed to the heavens. Galileo was not the inventor of the telescope. Report reached him of such an instrument made in the Netherlands; he seized upon the conception and immediately made one with his own hands. It was his distinction to be the first to apply it to the study of the heavens. He quickly improved upon his first attempt, and afterwards made hundreds of instruments. They were in demand all over Europe. The results of the first few months were astounding. Discovery after discovery gave the lie to the doctrines of the blind guides. First, the moon revealed the mountainous configuration of her surface; next, the Milky Way resolved itself into separate stars; the four moons of Jupiter were seen; the ring of Saturn was seen, but not recognized as such; Venus appeared in a crescent shape; and the Sun-spots were discovered. How is it possible for us, familiar all our lives with these facts, to imagine the confused excitement of delight and consternation which accompanied their first disclosure? The grand scientific result of the whole was the demonstration of the truth of the Copernican theory, which, after making its way for nearly a century so slowly as to seem almost lost, now arose to life, victorious over all gainsayers. Galileo had early accepted this theory, but had abstained from avowing it, more, he says, from fear of derision than of persecution. But he might well dread both. For had he not heard, in February, 1600, how the brave thinker, Giordano Bruno, was burned at Rome? He must have known Bruno's works and learnt something from them; and if the terror entered into h'm, can we wonder?

It was during his residence at Padua, in 1597, that his friendship with Kepler began, which lasted till Kepler's death in 1632.

Galileo was a courtly man, and he not only named the new-found satellites the "Medican stars," but named each of the four after some member of the ducal family. In September, 1610, he settled at Florence as philosopher and mathematician to the Grand Duke. In the spring of 1611 he visited Rome, was cordially received, and with his "optic tube" showed the wonders of the heavens to the folk of the papal court.

But it was soon evident that the conclusive demonstration of the Copernican theory was, with the Chnrch, a casus belli; and the war began. Galileo had no wish to raise discussion on the relation of Scripture to Science, but once begun he accepted it fiercely. During 1615 there was a suspension of arms; and Galileo was again well received at Rome at the end of the year. The Inquisition interfered; but only to decree the Copernican theory to be absurd and false. Bellarmine, the leading member of the Holy College, gave Galileo a warning not to hold, teach, or defend the condemned doctrine. He gave him also a certificate that no abjuration was required, no penance imposed. The next sixteen years he spent in scholarly quiet at Florence. Ominous tidings, however,

reached him in February, 1619, of another philosopher—"atheist," of course—Vanini, burned by the Inquisition at Toulouse.

In 1632 Galileo published his most important work, the "Dialogue on the Systems of the World." This was the final signal for action. Proceedings were taken under the authority of a decree of the Holy Office passed in February, 1616, an absolute prohibition of the teaching of the condemned theory, which had not been published nor communicated to Galileo. (The existence of this decree, long doubted, has now been verified beyond question.) The old man, now seventy, and broken in health, was cited to Rome, and underwent the agony of a trial with "rigorous examination," but not with the actual torture. His courage failed him, and to save his life he made a lying abjuration. A spectacle too mournful to dwell on! But the truth falls not when her champion turns coward. Henceforward he was the prisoner of the Holy Office, although allowed to return to Florence.

The next year he lost his beloved daughter—she dies, although

"He loved her most, and thought to set his rest On her kind nursery."

In 1636 he became blind. His last years were spent at his country-house at Arcetri; and here, in 1639, Milton visited him. He is mentioned in "Paradise Lost," but no particulars of the interview are given us. What could Milton—he who could unshrinking face a world in arms—what could he say of the abjuration? It might be an exquisite delicacy of feeling that kept him silent. Galileo died at Arcetri, on the 8th of January, 1642.

The original records of his trial, preserved in the Vatican, were first published in extenso in 1867. Of recent works on Galileo the most noteworthy is that by Von Gebler, entitled "Galileo Galilei und Römische Curie," which has finally cleared up the story of the trial. An English translation was published in 1879. The first complete edition of Galileo's works appeared at Florence in 1842-56 in fifteen vols. 8vo. There is a good English biography of Galileo by Drinkwater.

CHRONOLOGY.

Age	A.D. A.	6
Born at Pisa.	1611 Removed to Florence: visited	_
Entered University of Pisa . 17		7
Discovered law of vibration of	1615 Appeared before the Inquisi-	
pendulum 18	tion at Rome 5	1
-92 Lecturer and Professor of		
Mathematics 25-28	1632 " Dialogo sopra i due Massimi	
Friendship with Kepler com-	Sistemi del Mondo" 6	8
menced		
Invented thermometer 39		a
Constructed telescope 45		0
"Siderens Nuncius." dis-		
are all the or to		4
covered satellites of Jupiter 46	1642 Died at Arcetri 7	8
	Born at Pisa. Entered University of Pisa . 17 Discovered law of vibration of pendulum 18 -92 Lecturer and Professor of Mathematics 25-28	Born at Pisa. Entered University of Pisa 17 Discovered law of vibration of pendulum 18 -92 Lecturer and Professor of Mathematics 25-28 Friendship with Kepler commenced



HARVEY.

A.D. 1578-1657.

DISCOVERER OF THE CIRCULATION OF THE BLOOD.

WILLIAM HARVEY, the greatest physiologist the world has seen, was a native of Folkestone, in Kent. His father was a yeoman in substantial circumstances, and brought up a large family, nine in number, five of whom became merchants of note and consideration in the city of London. At ten years of age William Harvey was sent to the grammar school at Canterbury, and at sixteen was entered a pensioner of Caius College, Cambridge, where he spent some years in the study of logic and natural philosophy, as preparatory to the study of medicine. He next travelled through France and Germany to the University of Padua, then the most celebrated school of medicine in the world, where he attended with the utmost diligence the lectures of Minadous, Fabrizio d'Acquapendente, and Casserius. From the first he attracted the marked notice of his eminent

teachers, who, high as was the estimate they had formed of his abilities and attainments, were nevertheless surprised at the accuracy and extent of the knowledge which he evinced preparatory to his doctor's degree. This was conferred upon him in 1602, and his diploma is couched in terms of extraordinary approbation.

Having returned to England in the course of the same year, he was incorporated Doctor of Medicine at Cambridge; and then going to London, and taking to himself a wife, in his twenty-sixth year, he entered on the practice of his profession. On the recommendation of King James I., backed by that of the President and of several members of the College of Physicians, he was elected physician to St. Bartholomew's Hospital; and afterwards he was appointed Lumleian lecturer on anatomy and surgery in the College of Physicians—an office then held not for a definite period only, but for life. Harvey commenced his lectures in 1616, and is generally supposed to have expounded on this occasion those original and complete views of the circulation of the blood which have rendered his name immortal. It was not, however, until 1628 that he gave his views to the world at large in his celebrated treatise entitled "Exercitatio Anatomica, de Motu Cordis et Sanguinis," having then, as he states in the preface, for nine years and more gone on demonstrating the subject before his auditory at the College of Physicians, illustrating it by new and additional arguments, and freeing it from the objections raised by the skilful among anatomists.

This discovery was of such vast importance to medical science, that when men became satisfied, as they did in the course of a few years, that it could not be contested, several put in a claim for the prize themselves, and many affirmed the discovery to be due to others.

At one period Harvey's professional emcluments must have been very large; but it is sad to relate that the appearance of his admirable "Exercise on the Motion of the Heart and Blood," while it immortalized his name, gave a decided check to his professional prosperity. Aubrey tells us he had "heard him (Harvey) say that after his book on the 'Circulation of the Blood' came out, he fell mightily in his practice; 'twas believed by the vulgar that he was crack-brained, and all the physitians were against him."

About the year 1618 Harvey was chosen one of the physicians extraordinary to the reigning sovereign, James I., and afterwards he became physician in ordinary to Charles I. He always spoke of the latter monarch in terms of unfeigned love and respect; and King Charles, in turn, loved and honoured his physician. It was certainly worthy of the sovereign who appreciated, while he commanded, the talents of a Vandyke and a Rubens, that he also prized and encouraged the less brilliant but not less useful genius of a Harvey.

For a considerable time Harvey followed the fortunes of his royal master. He was with him at the battle of Edgehill, and during the

engagement, as we are told by Aubrey, the Prince of Wales and the Duke of York were committed to his care, when "he withdrew with them under a hedge, and tooke out of his pocket a booke and read. But he had not read very long before a bullet of a great gun grazed on the ground neare him, which made him remove his station." Harvey accompanied the king to Oxford after the battle, and was there incorporated Doctor of Medicine. In 1645 he was, by royal mandate, elected Warden of Merton College, in place of Nathaniel Brent, who had withdrawn himself from the office, had left the University, and had taken the covenant. This preferment was merited by Harvey, on account not only of his fidelity and services, but of his sufferings in the royal cause, for during the confusion of the times his house in London was plundered of its furniture, and—what was a much heavier loss—of his papers, containing a great number of anatomical observations, particularly with regard to the generation of insects.

He did not long possess the wardenship of Merton College, for upon the surrender of Oxford to the Parliament he left the University and repaired to London. From this time he lived in a retired manner, residing either at Lambeth, or in the house of one of his brothers at Richmond.

In the seventy-first year of his age he was prevailed upon by his intimate friend, Dr. George Ent, to permit the publication of his second great work, "Exercises on the Generation of Animals," which had employed so large a portion of his time and attention. Indeed, no one appears to have possessed in a greater degree that genuine modesty which distinguishes the real philosopher from the superficial pretender to science. His great discovery was not publicly offered to the world till after a nine years' probation among his colleagues at home; and the labours of all the latter part of his life would scarcely have appeared till after his death, had not the importunities of a friend extorted them from him.

Worn down by repeated attacks of gout he died on the 3rd of June, 1657, and was buried at Hempstead, in Essex.

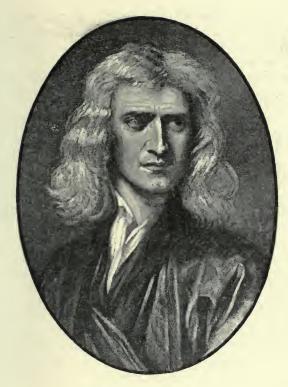
"In person," says Anbrey, who knew him well, "Harvey was not tall, but of the lowest stature; round-faced, olivaster (like wainscot) complexion, little eye—round, very black, full of spirit—his hair black as a raven, but quite white twenty years before he died."

The honour of discovering the circulation of the blood has been assigned to others. The claims of Fra Paolo Sarpi to be ranked among discoverers in this line of inquiry have proved on investigation to be of the flimsiest description. Andrea Cesalpino's ideas on the circulation of the blood were far nearer the truth, and, in fact, he had very nearly approached and well-nigh anticipated Harvey. To Cesalpino's theory Harvey added little, but that little was all important, namely, the demonstration of the true function of the heart. Three centuries have

now elapsed since Harvey first saw the light, and two and a half from the "natal day of the circulation" (as he terms the date of the first appearance of his book); but, as a living writer remarks, we have not yet exhausted the consequences of his labours. Although each succeeding generation has contributed its quota of new knowledge to that already accumulated, what they have done has but prepared the path of investigation for those to come. Their task, however, will still be to correct and complete, not to supersede, the work of the great English physiologist. His theory must always be the indispensable substructure upon which the science of animal life is founded; and each successive story added to the edifice, each buttress by which it is strengthened, each pinnacle by which it is embellished, serves to enhance the glory of him who drew his plans so straight and laid his foundations so sure.

CHRONOLOGY.

A.D.		Arro	A.D. Ag	70
		1180.		
1578	Born at Folkestone.		1632 Physician to Charles I	54
1593	Entered Cambridge	15	1043 Warden of Merton College . (65
1599	Studied at Padua	21	1649 "Exercitationes dum Anato-	
1602	Returned to England; M.D.	24	micæ de Circulatione San-	
1615	Lumleian lecturer on anatomy		gninis," &c	71
	and surgery	37	1651 "Exercitationes de Genera-	
1623	Physician to James I	45	tione Animalium"	73
1628	"Exercitatio Anatomica de	,	1657 Died	79
	Mota Cordis et Sanguinis	3		
	in Animalihus"	50		



NEWTON.

A.D. 1642-1727.

THE LAW OF GRAVITATION.

The little village of Woolsthorpe, in the county of Lincoln, was the birthplace of Newton, who was born in the year that marked the death of Galileo. His father dying previous to his birth, and his mother marrying a second time when he was three years old, he grew up under the charge of his grandmother. At the age of twelve he was sent to the public school at Grantham, and for a time was rather inattentive to his studies, and the last in his class. But one day an incident occurred which effectually roused his dormant faculties. The boy who stood above Newton in the class gave him a severe kick on the way to school, the thought of which, rankling in his breast during the morning session, induced him at the close to challenge the boy to a fight in the churchyard, and he had the good fortune to vanquish him; but, though beaten

in the churchyard, the boy still stood above him in the class, and Newton determined to supplement the muscular victory by a mental triumph; and though the conflict was longer, it was, like the first, successful, and the position once gained was never lost.

. Without doubt Newton's indolence arose from the fact that his health was extremely delicate, and he was already occupied with subjects more entertaining to him; for he passed all his leisure in constructing little models of known machines, and amusing contrivances for his playmates. He made a water-clock, the index of which was turned by a piece of wood, which rose and fell according to the force of the water. A wind-mill that was turned by a mouse, and a chair that was propelled by the person occupying it, were others that the "sober, silent, and thinking lad" amused himself by constructing.

After three years at Grantham, his mother, now a second time a widow, returned to Woolsthorpe, and called Isaac from his school to help her in managing the little farm. But his decided tastes for study and meditation prevented him from rendering much service, and, upon the advice of an uncle, it was decided that he should prepare for Cambridge. He was at this time experimenting on the subject of the resistance of fluids—endeavouring to find out the proper form of a body which would experience the least resistance when moving in a fluid. In 1658, on the day of the great storm (the day that Cromwell died), we find the boy of sixteen determining the force of the gale, by jumping first in the direction of, and then in a direction opposed to, the wind; comparing the length of these jumps with the length of a jump made in a calm day, he computed the violence of the storm.

After a year or more of preparation he entered college, followed the mathematical lectures of Barrow, familiarized himself with the geometry of Descartes and Wallis's "Arithmetic of Infinites;" and, as a result of these studies, put to paper his discovery of the Method of Fluxions. He was also occupied with making researches on the decomposition of light, in which he detected the errors of Descartes, and established his own views on the subject.

In 1665, on account of the plague, the students at Cambridge were dismissed for a time; and it is related that while at home, seated in the garden, the fall of an apple directed his mind to the idea of the law of gravitation, which he afterwards perfected, to his lasting renown. "It occurred to him that as the same power by which the apple fell to the ground was not sensibly diminished at the greatest distance from the centre of the earth to which we can reach, neither at the summits of the loftiest spires, nor on the tops of the highest mountains, it might extend to the moon, and retain her in her orbit, in the same manner as it bends into a curve a stone or a cannon ball, when projected in a straight line from the surface of the earth. If the moon was thus kept in her orbit by gravitation to the earth, or, in other words, its attraction, it was equally

probable, he thought, that the planets were kept in their orbits by

gravitating towards the sun."

After the reopening of the University Newton took his degrees, and, in 1669, succeeded Barrow as Professor of Mathematics, and in his lectures exposed his theory of the composition of light and the explanation of the phenomenon of the rainbow. He had at this time constructed his reflecting telescope; but the work which added much to his reputation was his "Universal Arithmetic," probably written for his scholars, and which contains many geometrical problems solved by algebra.

On the exhibition of his telescope to the king and to the Royal Society, he was elected a member of that body, and, three years later, submitted to them his views on the Inflection and Composition of Light. During the years 1686 and 1687 he presented to the Society his three volumes of the "Principia," which contained the exposition of the law of gravity, founded on Picard's measure of the earth's diameter, and to which we are to believe the fall of the apple contributed so much.

The publication of the "Principia" saw Newton's life work accomplished at the early age of forty-five. It brought him fame and riches, which he lived to enjoy forty years longer. He had already represented Cambridge in Parliament; now he was appointed Warden, then Master of the Mint, and was elected President of the Royal Society. After he was ennobled he became a great favourite at the court of George I. He had found time, during these years of hard scientific labour, to write a "Commentary on the Apocalypse;" but it does not appear that his researches here were very valuable.

Newton was noted for generosity; and, after his fortune improved, he lived in good style, with six servants, and often gave sumptuous entertainments to his friends and foreigners, and preserved his cheerful, even temper to the day of his death, which occurred in March, 1726.

"We owe to Galileo," says Brewster, "the study of the laws of gravity; those which come into play in the fall of bodies on the surface of our globe. Since the time of this great man it has been discovered that gravity is a force inherent in the matter even of which the terrestrial globe is composed; it is known that the energy with which it is exercised depends on the distance of the body which is influenced; so that the energy increases when the distance diminishes, and decreases, on the contrary, when the distance augments.

"For example, the flattening of the two poles of the terrestrial globe, or what amounts to the same thing, the swelling of the spheroid towards the equatorial regions, causes the distance from the surface to the centre of the globe to increase continually as the equator is approached. It should therefore follow, that the attraction of the Earth on heavy bodies is exercised with much greater intensity at the poles than at the equator. This fact is abundantly proved by observation.

"The law which regulates this diminution of the force of gravity,

when the distance of the heavy body from the centre of the earth increases, is as follows:—

"To understand the law well in its simplicity, let us imagine a heavy body placed on the surface of the earth, and, consequently, distant from the centre of the length of the earth's radius, or, in round numbers, 4000 miles. Let us place it twice, three times, four times . . . ten times further away. The action of gravity on this body will be four times less at 8000 miles; that is to say, at the second position; nine times less at the following position, sixteen times . . . a hundred times less at the consecutive distances; in such a manner that, when the distances increase, following the numbers 1, 2, 3, 4, 5 . . . 10, &c., the force of gravity diminishes in the proportion of the squares of these same numbers, or becomes 1, 4, 9, 16, 25 . . . 100 times less, and so on.

"The force of gravity is measured by the space fallen through during the first second of the body's fall. So that, if experiment shows that a body requires a second to fall from a height of sixteen feet to the surface of the earth, when it is removed to a distance double that of the terrestrial radius, it will not travel more than four feet during the first second of its fall; at a distance sixty times as great as the radius of the earth, it would not fall more than the one-twentieth part of an inch.

"This number gives precisely the measure of the diminution of the energy of terrestrial gravity on a heavy body situate in space at the mean distance of the Moon.

"If, then, the earth exercises its action on bodies situated at whatever distances in space, it ought to act on the Moon, and its action should be precisely equal to that which we have just calculated. Such is the question which the genius of Newton put to him, and which he solved, when he showed that the Moon, in moving in its circular orbit falls towards our earth that very quantity in a second. It is this incessant fall, combined with the centrifugal movement, which, if left to itself, would impel the Moon into space, which produces the elliptical movement of our satellite in her orbit. Such is the bold generalization which served as a point of departure to the great geometer whom we have just named.

"He went farther; he penetrated more profoundly into the secrets of the sublime mechanics which rule the celestial bodies. He extended to all the bodies of our Solar System this law, which is sometimes called 'the law of attraction,' but more correctly, 'the law of gravitation.'

"Newton showed, that if the planets moved round the Sun, describing elliptical curves, according to the laws the discovery of which is due to Kepler, it is because that they are submitted to a constant force, located, as it were, in the Sun—a force the direction of which is that of a radius vector, or a right line which joins the planet and the common focus. He showed also, that all the circumstances of the movements of the planets are well explained by supposing that the force of gravitation is gravity

itself, exercised by the Sun on the planets in the inverse ratio of the squares of their distances.

"Thus the same force which precipitates on to the surface of the earth bodies abandoned to themselves, is that which maintains the Moon in its orbit. It is a force of similar nature, exercised by the preponderant body of the system—the Sun—which also maintains the planets and the comets in their elliptical orbits, and prevents them from losing themselves in space, following the impulse with which they are animated, and thus breaking up our system."

CHRONOLOGY.

A.D.	Age	A.D. Age
1642	Born at Woolsthorpe.	1676-77 Corresponded with Leib-
1660	Entered Trinity College 18	nitz 31–35
1663	Invented "Binomial Theorem" 21	1686 "Principia" presented to R.S. 44
1665	Established "Theory of	1687 Defended privileges of Cam-
	Fluxions" 23	bridge before the High
1666	Discovered composition of	Commission Court 45
	solar light 24	1689 Member of Parliament 47
1668	Constructed reflecting tele-	1695 Warden of the Mint; Pres. R S. 53
	scope 26	1701 M.P. for Parliament 59
1669	Professor of Mathematics at	1705 Knighted 63
	Cambridge 27	1711 "Methodus Diff" 69
1672		1728 Died at Kensington 86



LINNÆUS.

а.р. 1707-1778.

GREATEST NATURALIST OF MODERN TIMES.

The celebrated naturalist, Karl Linnæus, was born at Rooshoolt, a small village in Sweden, where his father was settled as pastor of a Lutheran church. From his infancy Linnæus seems to have been an ardent lover of Nature, and his father, who had some knowledge of Natural Science, taught him the Latin names of all the trees and plants in the vicinity, as soon as he could talk. But his progress in his early studies at the village school was slow, and he often played truant to go in search of flowers; so that he became known by the name of "the little botanist." His father had intended to fit his son for the Church, but as years went on he changed his intention upon the advice of the boy's instructors, and arranged to place him at a trade instead. His seventeenth year found him about to be apprenticed to a shoemaker; but,

fortunately, a Dr. Rothmann became interested in him, encouraged his love of Nature, and provided for his being received as student at Lund, in the house of Stobæus, the Professor of Natural History there.

After a short stay at Lund, desirous of following the courses of the most celebrated Swedish professors, Linneus repaired to Upsal in 1728. His resources were so small that his life was little else than a hard struggle against actual want for months; but it did not prevent his following his studies with zeal, and one day, in the garden of the University, he attracted the attention of Olaus Celsius, Professor of Theology and a clever naturalist. He became his friend and patron, and employed Linneus to aid him in his "Hierobotanicon," a description of the plants mentioned in Scripture.

After having studied Burchardt and Vaillant, Linnaus conceived his ingenious and celebrated system of the classification of plants according to their stamens and pistils. In 1731 this plan was published, and the young man of twenty-four, who till then had been only a struggling student, was invited to become deputy-lecturer under the Professor of Botany, and was put in charge of the Botanical Gardens of the University. He now began to sketch out plans for future works: "Classes Plantarum," "Genera Plantarum," "Critica Botanica," and "Bibliotheca Botanica."

His rapid advancement gave rise to such an amount of envy, however, that in 1732 he left Upsal, and accepted a commission from the Academy of Sciences at Stockholm to travel in Lapland, and makes researches in the natural sciences. This journey, which comprised about 4000 English miles, was performed on foot, and proves Linnaus to have been full of resolution, courageously braving danger and unremitting toil for the sake of augmenting the stores of knowledge. This toilsome journey, supplemented by another to Dalecarlia, was badly remunerated, and, on returning to Upsal, Linnæus found his circumstances so very precarious that it appeared necessary to go abroad to try and better his fortunes. In 1735 he visited Denmark, Hamburg, and Holland. At Harderwyk he took the degree of M.D., and at Leyden became acquainted with Boerhaäve, through whose influence he was appointed to take charge of the valuable plants and books belonging to a wealthy Dutch banker, Cliffort. For three years he lived in this delightful house, and brought through the press the works commenced at Upsal. The bounty of Cliffort enabled him, in 1736, to go to England, where he met Dillenius, Professor of Botany at Oxford. Two years later, en route to Sweden, he visited Paris, where he was received with great distinction by Bernard Jussieu, and elected corresponding member of the Academy of Sciences.

Arrived at Stockholm, he began the practice of medicine, and became Professor of Medicine and Botany at Upsal, which latter chair he occupied thirty-seven years. Later he was ennobled, and became physician to the King; was elected a member of all the learned societies of Europe, and became the centre around which revolved all the affairs of Natural History.

The almost universal adoption of his system of botany shows the estimation of the scientific world, and the honours conferred upon him by his Government show how he was regarded at home. The King of Sweden conferred on him the order of the Polar Star, which no man of letters had ever received before, and to which the Queen added many flattering proofs of esteem.

In 1776 Linnans' health began to fail, and a stroke of apoplexy, followed by paralysis, somewhat impaired his mental faculties. Though he lingered two years, a third shock at last proved too much for his system, and in his seventy-first year he died, universally lamented. The King caused a public medal to be struck, as an expression of the public grief, and erected a monument to his genius beside the one raised to Descartes.

One of the principal titles of Linnæus to glory is his creation of a scientific language, ingenious as it is useful. As a mineralogist he directed the attention of naturalists to the crystal; he made the first classification known, and established the principal modifications. As zoologist he ought to be commended for his ingenious classification of the organs of mastication, digestion, &c., in the animal kingdom. As botanist there is owing to him a complete system, besides the ingenious classification of plants spoken of above. All his scientific labour shows him to have been particularly clever in developing and rendering fruitful the scattered ideas of his predecessors.

The system of Linnæus has not endured without undergoing important modifications; and before his death he amended many of the statements of his previous years; but the uncontested honour remains to him, to have indicated the true method in Natural History. He observed the analogous indications in plants and animals, and they inclined him to attempt something in Zoology. To establish the divisions of the animal kingdom, he made classes of the distinctive characteristics of the parts of the organism destined to the most important functions of life; the brain, heart, lungs, organs of nutrition and locomotion. His zoological labours, without doubt, obtained as great renown as his discoveries in Botany; and he has given, in his assimilation, a new and startling proof of the extent of his genius. His classification of minerals had only an ephemeral existence; but it was on account of the slow progress that chemical analysis made, this being the essential base of their study.

"When looking over the 'Systema Naturae' of Linnæus," says one of his biographers, "it is hardly possible, in our day, to realize how great was the influence of that work upon the progress of Zoology. And yet

it acted like magic upon the age, and stimulated it to exertions far surpassing anything that had been done in preceding centuries. result must be ascribed partly to the circumstance that he was the first man who ever conceived distinctly the idea of expressing in a definite form what he considered to be the system of Nature: and partly also to the great comprehensiveness, simplicity, and clearness of his method. Discarding in his system everything that could not easily be ascertained, he for the first time divided the animal kingdom into distinct classes, characterized by definite features; he also for the first time introduced orders into the system of Zoology, besides genera and species, which had been vaguely distinguished before. And although he did not even attempt to define the characteristics of these different kinds of groups, it is plain, from his numerous writings, that he considered them all as subdivisions of a successively more limited value, embracing a larger or smaller number of animals, agreeing in more or less comprehensive attributes."

"It is said of Linnaeus, that although no man of science ever exercised a greater sway, or had more enthusiastic admirers, yet his merit was not so much that of a discoverer, as of a judicious and strenuous reformer. The knowledge which he displayed, and the value and simplicity of the improvements which he proposed, secured the universal adoption of his suggestions, and crowned him with a success altogether unparalleled in the annals of science."



LAVOISIER.

а.р. 1743-1794.

FOUNDER OF MODERN CHEMISTRY.

Antoine Laurent Lavoisier, whose discoveries laid the foundation of modern chemistry, was a native of Paris. His father, who had acquired a considerable fortune in commercial pursuits, took care to give him an excellent education. He studied with brilliant success at the Collége Mazarin, and carried off a great number of prizes in different classes. When he reached the class of philosophy he evinced so decided an inclination for natural science that he determined to devote the whole of his life to its cultivation; and his father, instead of following the general rule which obliges a young man to adopt a profession or trade, had sufficient courage to confirm him in this resolution. Accordingly, young Lavoisier, on leaving college, began at once to explore the mysteries of mathematics and astronomy in the observatory of the Abbé de la Caille, to practise chemistry

in the laboratory of Rouelle, and to follow Bernard de Jussieu in his herbalizings and botanical demonstrations. So intense was his passion for study that he restricted himself to a diet of bread and milk, when he perceived that the want of air and exercise was likely to injure his health; for he entirely renounced the pleasures of Parisian society in order to devote himself without interruption to his favourite pursuits.

Scarcely had he attained his twentieth year when a prize proposed by the Academy of Sciences gave him an opportunity of making positive researches on an important subject of natural philosophy. The problem was, to discover a more effectual and at the same time a cheaper method of lighting the streets of Paris than was then in vogue. Lavoisier, being desirous to trace the art back, by a series of delicate experiments, to its very first principles, had his room hung with black, and shut himself up in it for six weeks without seeing daylight, in order to render his eyes more sensible to the different degrees of intensity in the light shed by lamps. Such enthusiasm obtained the recognition it deserved, a gold medal being presented to him at a public meeting of the Academy. Previously to this he had accompanied Guettard on several mineralogical expeditions, which gave him new ideas on the structure of the globe-ideas which he developed and then published in a "Memoir on the Layers of Mountains," printed among the proceedings of the Academy. He had also presented to that learned body several essays on special chemical subjects, such as the pretended conversion of water into earth, and the analysis of the plaster of Paris. This latter essay was written with such admirable method and perspicuity, and the experiments were so exactly appropriate to the object in view, as to render it obvious that great discoveries might be expected from the author. Accordingly the Academy hastened to enroll him among their members, and in 1768, at the early age of twenty-five, Lavoisier was elected an associate, on a vacancy being caused by the death of Baron.

The young chemist was not long in perceiving that a fortune might be required in order to carry out the experiments which he had in contemplation. Therefore he decided to sacrifice a portion of his time to pursuits more lucrative than those of science; and a few months after his admission to the Academy he was appointed a Farmer-General, or collector of the public revenues. Some of his colleagues in the Academy were astonished at first that he should have accepted a post of this kind, but they soon learnt that a well-ordered mind, like that of Lavoisier's, only required a very brief space of time every day for the transaction of business, and that there was nothing to prevent him from devoting his principal energies to scientific researches. These he conducted for several hours every morning and evening, and one day in the week was set entirely apart in order that he might ascertain, by actual experiments, the correctness of the ideas which his studies and meditations had engendered.

In these weekly assemblies, to which learned men of all nations found easy admission, the opinions of the most eminent scientists in Europe were canvassed; passages the most striking and novel, out of foreign writers, were recited and animadverted on; and theories were compared with experiments. Happy hours were passed in these learned interviews, no subject being left uninvestigated that could possibly contribute to the progress of the sciences and the physical amelioration and happiness of One of the greatest benefits resulting from these assemblages, the influence of which was soon felt in the Academy itself, and consequently in all the physical and chemical works afterwards published in France, was the agreement established in the methods of reasoning between the natural philosophers and the geometricians. The precision, the severity of style, and the philosophical method of the latter, were insensibly transferred into the minds of the former; the philosophers became disciplined in the tactics of the geometricians, and were gradually moulded into their resemblance. In the assemblage of such a constellation of scientific lights, Lavoisier improved and embellished his own great talents. To the critical examination of these philosophers he submitted the results of his most important experiments, and invited his critical friends to state the most weighty objections that occurred to them; nor did he venture to announce any of his discoveries to the public until they had undergone this ordeal.

Thus Lavoisier became the founder of the French Chemical School, the distinctive character of which was a close and mathematical mode of reasoning in theory, combined with a rigid attention to facts in conducting experiments. The period when that school flourished in its greatest vigour (1780-88) was marked by the most important discoveries, and the most striking alterations were made both in the foundation and superstructure, the doctrine and language of chemistry. Ancient and baseless theories were exploded, the ideal doctrine of Phlogiston vanished before the decisive proofs of experiment, and the new system of Pneumatics was completely established. Although Lavoisier, in this great revolution of science, was assisted by many of the most eminent chemists of the age, yet to him exclusively is due the honour of being the founder of it; his own genius was his sole conductor, and the talents of his associates were only rendered subservient to the completion of his comprehensive plan, by his own meritorious exertions. For upwards of fifteen years did Lavoisier pursue his chemical experiments and discoveries, without making a single false step; at last, in 1789, he published his "Elements of Chemistry," which presented the science in a form entirely new, and completely distinguished the discoveries and improvements of Lavoisier from those of all former chemists.

In 1794 an order was issued by the Revolutionary Tribunal for the arrest of Lavoisier and twenty-seven other farmers-general, on the paltry

charge of having connived at the putting of too much water upon tobacco. Their real offence was the possession of wealth. On hearing that such a decree had been issued, Lavoisier fled and remained for several days concealed in one of the innermost cabinets of the Academy; but finding that this step might be prejudicial to his companions in misfortune, he came forth from his hiding-place and voluntarily delivered himself up. He now became convinced that he should be deprived of his entire property. and resolved to devote himself to the profession of pharmacy, which he had studied in youth. But the release he expected was not in store for A decree was passed making the Farmers-General punishable for treason on the ground of their having made profits from the old govern-Under this decree Lavoisier and his companions were sentenced to death by the Revolutionary Tribunal, not, however, without an earnest protest being made by a courageous citizen named Hallé, who read a paper recounting the manifold services rendered to Science and to the State by the great chemist. On hearing his sentence Lavoisier requested a few days' respite, in order to finish some experiments he had been making in prison. Even this poor boon was denied him. The Tribunal rudely answered: "The Republic has no need of learned men." cordingly, on the 8th of May, 1794, he was guillotined, at the age of fiftyone, along with 123 others. Thus died Lavoisier, one of the brightest stars in the firmament of Science.

CHRONOLOGY.

	F 1		
A.D.	Age		ge
1743 Born at Paris.		1777 "Sur la Fabrication de Salpêtre"	34
1768 Associate of Academy .	25	1783 Discovered composition of	
1769 Farmer-General	26	water	40
1775 "Opuscules Chimiques	et	1789 "Traité Élémentaire de	
Physiques"			46
1776 Improved gunnowder	33	1794 Guillotined at Paris.	51



BICHAT.

л.р. 1771-1802.

FOUNDER OF GENERAL ANATOMY—GREATEST PHYSICIAN OF MODERN TIMES.

MARIE FRANCIS XAVIER BICHAT, the celebrated French anatomist and physiologist, was born in the small village of Thoirette, near Mantua. He was the son of a physician, and received his earliest instruction from his father, and may be said to have been familiar with the Latin language from his earliest years. His classical studies, begun at Mantua, were finished at Lyons, where he commenced the study of medicine in his twentieth year, following the lectures of the celebrated Antoine Petit.

In 1793 the Revolution interrupted his studies at Lyons, and he came to Paris and attended the lectures of the famous surgeon Desault, with the view, at first, of becoming an army surgeon. But the following incident led to a change in this determination. According to a custom

in the school, certain pupils were obliged to enlarge their notes of a lecture, and on the day following to read publicly what they had written: thus securing to the class a double hearing of the same subject. occasion the student in turn was absent, and Bichat, but lately arrived. promptly offered to take his place. In his treatment of the subject, which was the fracture of the clavicle, he did not confine himself entirely to the remarks of the professor, but hinted at some new methods of treatment; and this, together with the excellence and brilliancy of its style, caused his abstract to make a lively sensition among both students and professors, and stamped his genius as being of no ordinary type. To this happy incident he owed his friendship with Desault, who immediately discovered his merit. He offered Bichat a home, with the treatment of a son, and destined him to become his successor. He associated him in all his work, gave him a part of his patients to visit, a post at the hospital, and employed him in collecting facts from experiments for an important work. But if Desault exacted much, Bichat performed still Notwithstanding the incessant duties of the day, he devoted a large portion of his nights to operations and study upon divers points of the science.

By such profound application he acquired in a short time a fund of knowledge that enabled him to depend on himself alone for means of advancement; and when, at the end of a year, Desault died, Bichat not only was able to continue his investigations with the same success, but undertook to prepare Desault's works for publication, and assumed the support of his widow and son.

After two years of solitary and profound study Bichat opened, in 1797, a school for teaching anatomy, physiology, and surgery. The course of instruction was entirely distinct from that of the Faculty of Paris, and became very popular. Three lectures were often given in one day, and here, as elsewhere, Bichat showed himself a most zealous worker; often preparing the dissections with his own hand before delivering the lecture. His laborious researches in the hospital, the dissecting-room, and the physiological laboratory, were often interrupted by illness brought on by overwork; and it seems extraordinary that he could find time to arrange and perfect his views and researches for publication. In 1800, however, appeared his "Traité des Membranes," in which he laid the foundation for a science of general anatomy.

"He thought only of performing his promises and of enlarging upon the truths of which he had but just given an insight. In a treatise, which he shortly afterwards published, he displayed more fully his doctrines on the membranes, and considered them with respect to their form, organization, vital properties, functions, and sympathies. These considerations obliged him to expose, at some length, many of his physiological principles; the latter, however, were in many cases the result of his researches upon the organs themselves. Thus the difference of vital power possessed by the mucous membranes which are subject to the contact of external bodies, and the serous membranes which are withdrawn from such contact, conducted him to the distinction of two kinds of sensibility; he had already distinguished two kinds of contractility. The study of the sympathies in the membrane gave him the happy idea of dividing them according to the vital powers, of which they are only the irregular development, instead of classing them, as is usually done, according to the parts in which they supervene, or from the nature and disposition of the organs in which they are remarked."

"The treatise on the membranes had the greatest success. Immediately regarded as an elementary and classical book, it was cited in almost every work, and given an honourable place in the libraries of the studious.

"About the same time he announced a regular course of physiology, and in a more authentic and universal manner gave the world these principles in his "Physiological Researches on Life and Death." The work is divided into two entirely different parts; the first contains the general exposition of his physiological views; the second is composed of a series of experiments upon the mutual connection of the three principal organs of life—the brain, the heart, and the lungs. These are, indeed, two separate works; the first explains the second, but is not absolutely necessary to it. The opinion which is formed of the one should be entirely independent of that which is formed of the other.

"In his researches on life he exposes, in great detail, the distinguishing characters of the two orders of the functions which serve for the external relations and preservation of the individual. He examines the development of the two lives, and lastly, the manner in which they terminate. This plan, which is filled up with the utmost luxuriance of idea, incessantly presents wherewithal to admire the genius of the author. His theory on sleep will never be forgotten, nor his considerations on what has been named the epigastric centre, nor his table of the vital properties, nor his observations on the progressive manner of natural death."

The same year that his first book appeared he was appointed physician of Hôtel-Dieu, when in a single winter he dissected 600 bodies. Devoting himself to the study of therapeutics, he meditated a complete reform in that science, a reform which he would probably have effected had not a sudden death surprised him in the midst of his superhuman toils. Engaged on a large and complete treatise on descriptive anatomy, he carried on his dissections even during the hot days of July, when the heat and unpleasant odours drove all others away, but which could not move him from his studies. Such intense devotion cost him his life; for he was attacked with a fever originating in exposure to the putrescent

emanations, and his short but brilliant career was brought to a close in 1802, in the thirty-first year of his age.

Bichat achieved the downfall of the so-called iatro-mathematical school, which had regarded exclusively the physical phenomena of the living body, exposing on the other hand the fallacy of the then prevalent doctrine that there is in every living body a "vital principle," which governs and directs all its actions. Among others of the important new doctrines propounded in his work "On Life and Death," is the classification of the functions into organic and animal, which was a great step toward helping to arrange the phenomena of life on a systematic basis. "Altogether," says Carpenter, "Bichat left an impress upon the science of life, the depth of which can scarcely be overrated; and this not so much by the facts which he collected and generalized, as by the method of inquiry which he developed, and by the systematic form which he gave to the study of general anatomy in its relations both to physiology and pathology."

Bichat is one of the few men whose names form epochs in the history of medicine. Medical science, from Hippocrates to Galen, was empiric; from Galen to Harvey, scholastic; from Harvey to Bichat, dogmatic; only since his time has it become scientific. No man has ever penetrated the human organism as he did. All the landmarks of the older anatomists were thrown down—the liver, the heart, the stomach, were no longer regarded as distinct seats of life, but became, under his hand resolved into the elementary tissues; Physiology was generalized; tissues, not organs, were seen to be the true vital source—the mucous, the vascular, the nervous, the muscular. He set the world to studying the minute structure of the tissues; Physiology became based on Histology, Medicine became based on Pathological Anatomy.

CHRONOLOGY.

A.D.		Age	A.D.		Age
1771	Born at Thoirette.	Ü		"Recherches sur la Vie	et .
1793	Studied under Desault	at		la Mort"	
	Paris	22	1801	"Anatomie Générale," &c.	. 30
1797	Professor of Anatomy	26	1802	Died	. 31
	"Traité des Membrane				



CUVIER.

а.д. 1769-1832.

ZOOLOGIST—FOUNDER OF COMPARATIVE ANATOMY.

Certain of the world's worthies are born to be initiators, others to raise monuments; those of the first class make epochs, and change the current of human thought or human feeling: such were Socrates and Æschylus. The others are the monument builders, like Aristotle and Shakspeare. While those of the first class change the course of the current, those of the last crystallize it.

There is one of the world's monuments to be found in the Reference Room of the British Museum. It is in seventeen volumes, large octavo, full of coloured plates, and bears the following title: "The Animal Kingdom, distributed according to its Organization, serving as a Basis for the Natural History of Animals, and an Introduction to Comparative Anatomy."

This is one of the few books that can never grow old. Science as it

advances grows more abstract and profound; but the student can scarcely penetrate to the new depths, except by cutting down from the surface. This is a book for a first year's course in Natural History, and it is a book for the lover of Nature to take up at any time. It is a zoological and anatomical museum entire.

Georges-Léopold-Chrétien-Frédéric-Dagobert Cuvier, the great French naturalist, was born in 1769, at Montbéliard, a town under the dominion of the Duke of Würtemberg. His family were Protestants, who at the time of the Reformation had been driven by persecution from a village in the Jura, which still bears the family name. Cuvier's mother was an accomplished women, and his father's brother was distinguished for his learning; so that it is not extraordinary that, though being far from robust, he early showed an eager desire to acquire knowledge. At four years he could read fluently, and at six was inquiring into the phenomena of Natural Philosophy. His mother taught him drawing, and helped him with his Latin; so that he was always the first scholar in his classes. As he grew older he became noted for his great memory, skill in drawing, and aptitude for Greek and Latin. At thirteen years of age he began to show that decided taste for Natural History which was to influence his whole life, and now he was never without a volume of Buffon in his pocket. He not only read and re-read it, but copied all the plates in water-colours, or made them out of pasteboard and bits of silk. Besides manifesting an absorbing interest in study, he was quite remarkable for his declamatory powers, and organized among his schoolfellows a juvenile society, with a code of regulations, and of which he was the president. It met at stated times, when, seated on his bed, after placing his companions round a table, he ordered that some work should be read which treated of natural history, philosophy, or travels. The merits of the book were then discussed, after which the youthful president summed up the whole, and pronounced judgment.

In 1784 he was brought to the notice of Duke Charles of Würtemberg, who took him under his special favour, and sent him, free of expense, to the Carolinian Academy at Stuttgart, which school had a somewhat military character. The pupils were instructed in every branch of knowledge likely to be useful to men destined to govern and direct. Unusual attainments enabled Cuvier to take a place among the foremost, and he had for companions three German boys, who became distinguished men—Schiller, Kielmayer, and Sommering. Cuvier studied hard, gained many prizes, and was one of the five or six out of four hundred pupils, who had the honourable title of Chevalier conferred upon them. He seized every opportunity for studying natural history, and collected a very considerable herbarium; besides which he drew and coloured an immense number of insects, birds, and plants.

His studies finished, he was promised a place under the administra-

CUVIER.

tion, but circumstances obliged him to seek employment at once. He found it as tutor in a nobleman's family in Normandy. Here he remained almost eight years; but from his correspondence it is seen that he laid the foundations of his future fame during the very first year of his tutorship, by his researches on Mollusca. He began by accidentally comparing some fossil remains with recent species, and the casual dissection of a calmar, a species of cuttle-fish, led him to the study of Mollusca, which were not difficult to obtain, as the sea-shore was near.

All the inferior animals had been included by Linnæus in the class called *Vermes*; but Cuvier, after carefully studying their organization, felt impelled to make a new classification, and arranged them according to their natural affinities; a classification founded on the internal structure of the animal, and not on the form of the shell. He committed his observations to paper, merely for his own use, not realizing the special value of his discovery. But an acquaintance with Abbé Tessier, a refugee of the Revolution, brought these papers to light; and the Abbé, who was a writer of note, enthusiastically transmitted them to Geoffroy Saint-Hilaire, who also saw the importance of such a discovery. A correspondence began, and Cuvier was invited to Paris. "Come quickly," wrote Saint-Hilaire to him; "to play among us the rôle of a new Linnæus, another founder of Natural History."

Not till 1794, however, did Cuvier accept the invitation—then, at first became assistant to Mertrud in the Jardin des Plantes, and, at the death of Daubenton, was elected to the chair of Natural History in the College of France. Here he acquired the reputation of being the greatest teacher of his day. He began to publish various papers, chiefly on the structure of the lower animals; and in 1798 produced "Tableau Élémentaire de l'Histoire Naturelle des Animaux;" and later, after vigorous research, gave to the world a great work, the "Fossil Bones of Quadrupeds."

Napoleon was not long in recognizing Cuvier's great administrative ability, and appointed him one of the inspectors-general of education, and he helped to found the royal colleges at Marseilles, Nice, and Bordeaux. One of the most brilliant productions from the pen of Cuvier is the Report on the Progress of Natural Science from 1789, drawn up at the request of the Emperor. He was also employed in reorganizing the educational institutions of Piedmont, Genoa, and Tuscany, and travelled through Holland, Lower Germany, and Italy, where, besides examining academies, he visited all the museums, making drawings of everything new, and procuring fossil remains. The delicate task of organizing a university at Rome was entrusted to him; and, on his return, Napoleon appointed him Master of Requests, and, just before his abdication, Counsellor of State, which appointment was confirmed by Louis XVIII., who, in addition, created him Baron. In 1818 Cuvier became a member of

the French Academy, and, four years later, Grand Master of the Faculties of Protestant Theology, and was instrumental in establishing fifty Protestant cures in France.

It might be well to glance at another side of the picture. Cuvier certainly was a most polished courtier, possessing legislative shrewdness; fidelity, and the confidence of those who employed his talents; but he was also, and in as marked a degree, the indefatigable seeker after truth. He may be said to have never lost a moment, and his amusement and relaxation consisted merely in a change of employment. At the beginning of his career he had called his brother to Paris to aid him in making and arranging his collection, and later, when work increased, he employed his pupils to write out, from the notes of his lectures, much of his Anatomie Comparée, to which he wrote the introduction, arranged the chapters, and corrected the proofs. As perpetual secretary to the National Institute, he was appointed to write the celebrated éloges, in addition to other work; and he might be seen before seven o'clock in the morning arranging work for the various secretaries and amanuenses that he kept employed in the library at the top of his house. At first when he began to publish, as his means were limited, he not only drew but engraved the plates for his works himself. As opportunities presented themselves he had brought out second editions of his works, with modifications and additions, bringing them up to the same point as his investigations and lectures. As he passed the meridian of life he was as unremitting and enterprising in his researches as ever; undisturbed by the political changes which France underwent, he continued the favourite of all parties, a most extraordinary combination of the public functionary and philosopher.

But after almost forty years of research, teaching, and writing, combined with an arduous public life, although his intellectual faculties had never been more brilliant, the bodily frame broke down, and, after a short illness, he paid the great debt of Nature, being in the sixty-third year of his age. Having faithfully served his sovereign, greatly advanced the cause of science, and been ever a friend to the poor and struggling genius, he died universally lamented.

His Works.—His most important works are: "Comparative Anatomy" (1800-5), "Researches on Fossil Bones," preceded by a "Discourse on the Revolutions of the Globe," and "The Animal Kingdom" (1816-29). In the first, to the facts gathered by Claude Perrault and Daubenton, he added innumerable observations, and co-ordinated these elements into the form of a doctrine. In the second work he founded a science entirely new, the science of lost species of fossils—in short, Paleontology. In the third he embraced the entire animal creation, applied the principle of the subordination of characters to Zoology, and established the classification which serves to-day for the basis of this

CUVIER.

science; a classification based upon comparative anatomy. Linnæus had divided the animal kingdom into six classes: quadrupeds, birds, reptiles, fishes, insects, and worms. Cuvier remarked the extreme difference of creatures confounded in the last two classes of Linnæus, and proposed a new general distribution of the animals with white blood (insects and worms) into the following six classes: molluscs, crustaceans, insects, vermes, echinoderms, and zoophytes.

Until this time Comparative Anatomy was only a collection of facts relative to the structure of animals. Cuvier concluded that anatomy and physiology should form the basis of zoology, and that the most general and constant fact in the organization should determine its grand divisions, and the least general and most variable facts the secondary divisions. He thus established a subordination of character, which ought to be, and alone can be, the principle of a natural method; that is to say, of such a method of arrangement of beings that the place occupied by each of them gives a general idea of its organization, and of the relations which connect it with all others; a method which he regarded as science itself reduced to its most simple expression. Thus, examining the modifications of the organs of circulation, respiration, and sensation throughout the animal kingdom, instead of the six classes of Linnaus, Cuvier established four great types, vertebrates, molluses, articulates, and radiates, which he calls embranchments, and divides into classes of nearly equal value with those long established among the vertebrata. This tended very much to raise into importance the inferior animals.

Cuvier's two laws, the law of the subordination of the organs and the law of correlations, with some others, formed part of that science which permitted him methodically to reconstruct a great number of lost species by means of fossil débris. "Such was," says M. Flourens, "the vigour and infallibility of this method that Cuvier could recognize an animal by a single bone, or a single facette of a bone."

As a naturalist Cuvier takes a permanent rank among the few great men who have effected great revolutions in the sciences which they have cultivated, and who have left ineffaceable traces of the influence of their discoveries. The whole animal kingdom has assumed under his hands a systematic arrangement, founded on a careful and laborious observation of the analogies of internal structure. He converted the science of Natural History into a science of strict and severe induction, and conferred on it a dignity hitherto unpossessed by it. He reconstructed, as it were, the fossil remains of an antediluvian world from imperfect fragments. "The 'History of Fossil Bones' must ever remain a classical work to geologists; and the discoveries which it contains are some of the most interesting and extraordinary which observation upon the surface of the globe has ever enabled us to ascertain." To his masterpiece, "The

Animal Kingdom," sufficient allusion has been made; the monument builders receive their full share of fame in this world, while the claims of the initiators are often forgotten, often disputed. Many people have never heard of Lamarck; every schoolboy is familiar with the name and work of Cuvier.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1769	Born at Montbéliard.	•	1814 Councillor of State	
1795	Asst. Supt. at Jardin des		1815 Chancellor of the University.	46
	Plantes, Paris	26	1816 "Le Règne Animal"	47
1796	Member of the Institute	27	1818 Visited England	49
1798	"Tableau Élémentaire de l'His-		1819 President of Interior; baron;	
	toire Naturelle," &c	29	"Éloges"	50
1800	Prof. Nat. Philosophy, Collège		1822 Grand Master of Faculties of	
	de France	31	Prot. Theology	53
1802	Inspector-General of Schools.	33	1828 "Histoire Naturelle des Pois-	
1812	"Recherches sur les Ossements		sons"	59
	Fossiles," &c	43	1832 Peer of France; died	63
1813	Organized universities at Rome	44		

BOOK VII.

Politics.

WARRIORS AND STATESMEN.

INTRODUCTION.

Poets, Artists, Philosophers, Theologians, have passed in procession before us in this volume. We arrive now at those famous persons without whom neither poets could have sung, nor artists have produced images of beauty, nor men of science and prophets have taught truth and the obligations of conscience. School and Temple can only flourish where there is order and good government: and order and government, though they rise spontaneously in some form or other wherever human beings are collected together, yet have been shaped always, and reshaped and modified, by the intellectual superiority of determined and gifted individuals.

To these rulers of mankind, to the men who have organized nations, made laws obeyed, and written their names in history, the consent of the world has given the title of great, or the greatest, because their actions have produced effects which it has been impossible to refuse to acknowledge, and have been on a scale and of a kind to impress the imagination and to command universal attention. But with the admission of their claim to be distinguished the consent generally ends; and the greatness allowed to them means no more than that they were exceptionally powerful. That certain persons have achieved power, and made their wills obeyed, is a fact not to be questioned; but whether their power has been for good or for evil, whether they were men to be admired for their virtues, or abhorred and execrated as enemies of their kind, there is in most instances, and probably always will be, a serious difference of opinion. Cicero foretold truly that the character of Cæsar would be disputed over to the end of time.

Thus, while the chiefs of Art and Science sit honoured on their thrones,

without danger of further challenge, no such acquiescence has yet been found in the claims of the kings of men; and the explanation of the difference is easily perceived. Poets and artists may be objects of envy while they are alive, but the pleasure which they give is constant, and they rarely leave occasion for permanent ill-will. Their rivals die, and detraction dies with them, and succeeding generations admit willingly an excellence which is no longer the excellence of a competitor. The statesman, on the other hand, has enemies who never die. He represents some principle, or principles, which are perennial, and which are perpetually in collision with other principles no less vital and enduring. His success represents the triumph of a political party. His name is an immortal symbol, which challenges either admiration or animosity.

Nor is this the only cause. If we could see a great historical king or minister clearly and distinctly, we might admire the man, though we disapproved his policy; but from the nature of the case we see imperfectly, and we depend on our imagination to complete the picture. principles for which he contended may be clear, the outline of his actions may be clear. But the details are lost; the age in which he lived is swept away, with its passions, its beliefs, and the accidents of surrounding circumstances. His work is gone - gone beyond reach, beyond power of enchanter to recall, and nothing is left but an imperfect description of it. The more fortunate artist leaves his work behind him, to tell us the quality of its author. The great sculptor's statue is in our hands as he shaped it; we see it with our eyes; we measure and examine it at our leisure; we are not at the mercy of the reports of others. Words appear the most fleeting of all things, but words beautifully arranged and with a beautiful meaning in them have proved the most enduring of all things. We have Horace still present with us: he has left a monument of himself "more enduring than brass." Shakspeare can say "that the Pyramids shall not outlive his powerful Rhyme." Kings, less fortunate, write their histories in water. While they are alive all eyes are on them, all tongues are speaking of them. They die, and the generation dies which knew them; and they are left to the mercy of tradition, which is generous or ungenerous according to the temper of the time.

In generous ages, the bad is forgotten, the good is remembered and magnified; the great man is made a God, or Demigod, or Saint; but the legendary robes hide often altogether the real figure. Ungenerous ages leave us malicious libels or caricatures, not less misleading, even if some resemblance is preserved. Even contemporary authorities do not much improve our position. It has been truly said—

"die Zeiten der Vergangenheit Sind uns ein Buch mit sieben Siegeln."

It is not always the truest account of a man which survives, but the

most smartly written. In all societies the most eminent persons are the surest marks for scandal, and nothing gives wider pleasure. If we do not always believe scandalous stories about such persons, they amuse us, and we remember and repeat them. Let them be cleverly set down, and in a generation or two, when refutation is no longer possible, they will pass into admitted facts. "Calumny," says Sir Arthur Helps, "can make a cloud appear a mountain; nay, give it time, it can make a cloud become a mountain." The historian, when he comes to deal with these materials. thinks that he shows his impartiality by reporting evil as well as good. If he desires to be thought wise, he will incline rather to believe the evil than to disbelieve it, and the verdict is left to the opinion of the average public, which in these matters forms its opinions for itself. In Art and Science the public accepts the judgment of the specialist. It is conscious of its own inability, and allows itself to be guided. Every man is taught to suppose that he is a competent judge of political action; and as the majority of men are commonplace, their interpretations of character are naturally commonplace also. They explain conduct by motives with which they are themselves familiar. When they are told that Cromwell was an ambitious hypocrite, they think it so likely that they do not care to look further; nay, as in some ages the disposition is to an extravagant worship of great men, so there is in others a disposition to disbelieve in their existence; a visible desire to deny superiority in any man, and to drag saint and hero down to the common level.

These tendencies are plainly traceable in most modern historic judgments. We believe what we consider likely to be true, rather than weigh the evidence by which it is proved to be true; and our biographical conceptions of the distinguished figures in past ages are still mythical. There is a mythology of excessive admiration; there is a mythology of studied depreciation; and both alike are fatal to a sound judgment. Of the first we are in little danger at present; as to the other, which is the worst of the two, a few words of warning will not be out of place.

To the student who would understand the history of the men and women whose portraits are here laid before him, I recommend the following considerations:—

Exceptional eminence in public life is generally found in abnormal times, when the constitution of society is changing; when an old order of things is passing off, and a new order is coming in. Therefore no one is in a position to form a judgment on the conduct of men in such times who does not completely understand their position, and the element in which they had to work.

Men have accomplished great things in this world when they have represented the strongest and best contemporary interests and tendencies; their contemporaries have said to them: Certain things must be done; you see most clearly how they should be done; do you do them, and we will honour you and stand by you. Confidence of this kind is not usually given to personally ambitious men, or to men abandoned to vicious pleasure. Their strength is in the cause of which they are champions; so far as they have selfish objects they are weak.

Greatness is observed to be simultaneous in all departments of human achievement. The age of great statesmen is the age of great artists and thinkers: something has stirred the highest qualities into activity, and the spiritual level is universally elevated. The Prince, or chief, who under these conditions is especially honoured and admired, has the verdict in his favour of exceptionally good judges. We ought to bear this in mind when we are forming an opinion for ourselves.

Let us remember that libellous anecdotes are not necessarily true, because we read them in books a hundred or a thousand years old, and because they have been repeated ever since. The strength of the chain is only as great as the strength of its first link. A generous mind is clearer sighted than a mind prone to receive the worst interpretation; and, as Goethe says, "The way to insight is through good-will."

J. A. FROUDE.



PERICLES.

499-429 в.с.

THE ATHENIANS.

Pericles, one of the noblest heroes of Greek antiquity, was orator, statesman, warrior, and administrator. He came of a renowned family, his mother being a niece of Clisthenes, a foe to tyranny and founder of the Athenian constitution. In his youth he had for instructors some of the most noted philosophers, among whom was Anaxagoras, whom the people called "Nous," or "Intelligence," chief of the Ionian school, "the first who professed philosophy at Athens." It was this master who gave him that force and sublimity of sentiment, and that admirable dignity of manner, for which he was afterwards distinguished.

Extraordinary events occurred in Greece during the boyhood of Pericles. As he was growing up, Athens was increasing in power, and his early military service enabled him to share in some of her glorious enterprises.

At this time Cimon was at the head of the aristocratic party in Athens. Pericles, though belonging to a family of this class, declared himself of the opposite party, the people, and rapidly acquired an influence which. as it grew, seemed little short of fascination. He became the popular idol. He was distinguished for his oratory, but it was not this which rendered him the arbiter of Athens. It was by his universal genius, his disinterestedness, the simplicity of his life, his courage, and military talents, his unalterable probity and his administrative abilities, his intelligence of affairs and capacity as a statesman, together with his fidelity and devotion to the democratic party. The influence which he obtained was not a passing favour; for forty years he maintained his position, destroyed in a great measure the aristocratic authority of the Areopagus, in taking away many of its prerogatives, notably the inspection of the treasury, which he transferred into the hands of the people, together with much of the judicial power. Another victory which he gained over the aristocracy was in the banishment of their leader Cimon (460). But later on, when his presence seemed necessary to the interest of the republic, Pericles had the magnanimity to exert his influence for his recall.

After the death of Cimon and the banishment of Thucydides, son of Melesias, who had undertaken to lead the aristocratic party, Pericles found himself without a rival in the field (444). He dispersed the oligarchic faction, established unity and peace in Athens, and, under the modest title of *strategos*, exercised an almost absolute dictatorship, disposing of the public revenues, and directing the movements of the army and the fleet. But all this time the republican forms of government were preserved; it was always the people who in public assemblies decided all the affairs.

Among some of his public acts must be cited the distribution of conquered lands among the poorer citizens, the establishment of colonies in Thrace, Naxos, &c., the building of the long walls which joined Athens to the Piræus and to Phalerius, the development of the Athenian navy, the immense public works undertaken to give occupation to the unemployed, the increase of the national defensive army, and the consolidation and extension of the power of Athens.

Pericles further added to his glory by his protection of letters, arts, and philosophy, and by the construction of those admirable monuments of which our age can admire the *débris*, and which made Athens the most beautiful city of Greece, and consequently of the world. The Parthenon, the Odeon, the Propylæa, the temple at Eleusis, those *chefs d'œuvres* of human genius, gloriously justify the name of The Age of Pericles, given to this epoch. His idea was that, while Athens should be always prepared for war, she must also contain everything within herself to make the citizens satisfied with peace.

"The Athenians in their government had constantly in view," says

M. Burnouf, "to make their State a work of art. Without comprehending this, it is impossible to see how a man like Pericles could govern the republic during forty years when he held, not the power of Archon, which was the first in the State, but only that of general, which was second. But Pericles was the incarnation of the genius of the Athenian people. In the opening paragraphs of his celebrated funeral oration, preserved by Thucydides, we see how he understood their needs and their ideals. In handling public affairs he essayed to model the State as a work of art, full of life, of thought and liberty. Pericles may be characterized as the political artist of the Athenians. As the work to which he devoted himself demanded independence of thought and speech, without which action is impossible in a democratic State, so he respected in others what he demanded for himself. He was the most powerful man of his time, because he was the most liberal."

In his military expeditions he always joined to the valour which executes, the foresight which prepares, and the genius which conceives, The Chersonesus and Thrace, conquered and colonized, the democracy reestablished in Sinope, and in all the Greek colonies of Pont Euxine, the aristocracy humbled in the islands of Eubeus and Samos, where the popular government was established, the domains of the republic extended by his victories, are sufficient testimony to the military capacities of a genius diverse and without an equal. Yet towards the end of his career his credit suffered from the envious, who, not daring to attack him openly, sought to wound him by accusations against his friends Phidias and Anaxagoras. After the discouraging events of the Peloponnesian war, and a frightful plague, there were not wanting, finally, murmurs and threatenings against Pericles himself, and he was excluded from the government; but when the Athenians found themselves so badly served by his successors, they re-elected him, but too late for their good, for he fell a victim to the plague before he had had time to accomplish anything to add further to his own glory or his country's greatness.

"Pericles," says Thirlwall, "to describe his policy in a few words, had two objects mainly in view throughout his public life—to extend and strengthen the Athenian empire, and to raise the confidence and self-esteem of the Athenians themselves to a level with the lofty position which they occupied. Almost all his measures may be clearly referred to one or other of these ends."

A few paragraphs from Plutarch will seem to throw light upon the person and character of this greatest of Athenian statesmen.

"Pericles acquired not only an elevation of sentiment and a loftiness and purity of style, far removed from the low expression of the vulgar, but likewise a gravity of countenance which relaxed not into laughter, a firm and even tone of voice, an easy deportment and a decency of dress, which no vehemence of speaking ever put into disorder. These things,

and others of the like nature, excited admiration in all that saw him. It is related that when a low fellow followed him with abuses a whole day, Pericles bore it in silence, and continued to despatch public affairs, and at night ordered his servant to take a torch and light the man home.

"Yet such was the solicitude of Pericles when he had to speak in public that he always first addressed a prayer to the gods, 'That not a word might unawares escape him unsuitable to the occasion.'"

At first, as we have observed, to raise himself to some sort of equality with Cimon, who was then at the height of glory, Pericles made his court to the people. And as Cimon was his superior in point of fortune, which he employed in relieving the poor Athenians, in providing victuals every day for the necessitous and clothing the aged, and, besides this, levelled his fences with the ground, that all might be at liberty to gather his fruit, Pericles had recourse to the expedient of dividing the public treasure, which scheme, as Aristotle informs us, was proposed to him by Demonides of Jos. Accordingly he supplied the people with money for the public diversions and for their attendance in courts of judicature, and gave pensions and gratuities.

The orators of Thucydides' party raised a clamour against Pericles, asserting that he wasted the public treasure and brought the revenue to nothing. Pericles, in his defence, asked the people in full assembly "whether they thought he had expended too much?" Upon their answering in the affirmative, "Then be it charged to my account, not yours: only let the new edifices be inscribed with my name, not that of the people of Athens." Whether it was that they admired the greatness of his spirit, or were ambitious to share the glory of such magnificent works, they cried out "That he might spend as much as he pleased of the public treasure, without sparing it in the least."

"He kept the public good in his eye, and pursued the straight path of honour; for the most part gently leading them by argument to a sense of what was right, and sometimes forcing them to comply with what was for their own advantage."

"He was a man that had the art of controlling those many disorderly passions which necessarily spring up amongst a people possessed of so extensive a dominion. The two engines he worked were hope and fear; with these repressing their violence when they were too impetuous, and supporting their spirits when they were inclined to languor."

EXTRACTS FROM THE ORATION OF PERICLES.—"We enjoy a form of government which does not copy the laws of our neighbours, but we are ourselves rather a pattern to others than imitators of them. In name, from its not being administered for the benefit of the few but of the many, it is called a democracy; but with regard to its laws, all enjoy equally as concerns their private differences: while with regard to public rank, according as each man has reputation for anything, he is preferred

for public honours, not so much from consideration of party, as of merit; nor again, on the ground of poverty, when he is able to do the State any good service, is he prevented by the obscurity of his position."

"We have provided for our spirits the most numerous recreations from labour by celebrating games and sacrifices throughout the whole year, and by maintaining elegant private establishments, from which the daily

gratification drives any sadness."

"In the studies of war, also, we differ from our enemies (the Spartans) in the following respects. We throw open our city to all, and never, by the expulsion of strangers, exclude any one from either learning or observing things, by seeing which unconcealed any of our enemies might gain an advantage, for we trust not so much to preparations and stratagems as to our own valour for daring deeds. Again, as to our modes of education; they (the Spartans) aim at the acquisition of a manly character by laborious training from their early youth: while we, though living at our ease, no less boldly advance to meet equal dangers if with careless ease rather than with laborious practice, and with a courage which is the result, not of the laws but of natural disposition, we are willing to face great dangers, we have the advantage of not suffering beforehand from coming troubles, and of proving ourselves, when we are involved in them, no less bold than those who are always toiling."

"We study taste with economy, and philosophy without effeminacy, employing our wealth for opportunity of action, not for boastfulness of talking; while poverty is nothing disgraceful for a man to confess, but not to escape from it by exertion is more disgraceful."

"In short, I say both that the whole city is a school for Greece, and that in my opinion the same individual would amongst us prove himself

versatility."

CHRONOLOGY.

qualified for the most varied kinds of action, and with the most graceful

B.C.	Age	B C. Age
499	Date of birth.	410-39 Subdued Samos after re-
	Engaged in public affairs 30	volt 59, 60
461	Procured banishment of Cimon 38	440 Expedition to the Euxine 59
457	Obtained recall of Cimon 42	433 Made alliance between Athens
454	Campaign in Sicyon and Acar-	and Corcyra 66
	nania 45	432 Trial of Aspasia 67
447	Restored Phocians to posses-	431 Commencement of Peloponne-
	sion of Delphi 52	sian war 68
445	Concluded thirty years' truce	430 Conducted fleet to coasts of
	with Sparta 54	Peloponnesus 69
414	Began to have direction of	429 Died of plague 70
	affairs	



ALEXANDER THE GREAT.

356-323 в.с.

THE MACEDONIANS.

ALEXANDER was born 356 B.C. (Ol. 106, 1). The night of his birth saw the burning of the temple of "the great goddess Diana of the Ephesians." He was the son of Philip, King of Macedonia, and his wife Olympias. Philip was a greater sovereign than any of his predecessors, and he had large ambition. Macedonia, which lay on the northern border of Greece, the country of the Hellenes, was not itself Hellenic, but only closely akin to the Hellenic race. Its line of kings, however, boasted of Hellenic descent; and one of the aims of Philip was to obtain for his country recognition as a Greek state, and ultimately supremacy over all the Greek commonwealths. These aims he accomplished, partly by war and partly by policy and diplomacy. Two great and memorable things he did besides—produced a son greater than himself, and created

a Macedonian phalanx which stood invincible till broken by Roman legions. To this son, Alexander, and to this phalanx, he had to leave the execution of his vastest design, an expedition of all the Greeks under his leadership against the cumbrous luxurious despotism of Persia, which had thrown its portentous shadow over Hellas. The invasions of Darius and Xerxes must be avenged; the victories of Marathon and Salamis and Mycale must be followed up by victory in the very heart of the invaders' own empire; and the Greeks and human culture and civilization be thus made safe from the repetition and the fear of like perils. Philip was assassinated just when his preparations were completed, 336 B.C.

Alexander was now twenty years of age. He had given abundant proofs of being made of manly stuff. In boyhood, one of his triumphs was the taming of the horse, untamable by others, Bucephalus (Bullheaded), that bore him in so many fights. He had received the best education attainable; and for the last of his tutors had Aristotle himself. whom he cherished with the highest reverence, and loved as a father. "Never before or since," says Thirlwall, "have two persons so great in the historical sense of the word been brought together, above all in the same relation, as Alexander and Aristotle." Alexander early loved the "Iliad," and especially the grand Achilles, from whom he delighted to trace his descent. He remained always a lover of books and of all knowledge, and in the course of his conquests is said to have made collections in natural history for the benefit of Aristotle. At sixteen he was entrusted with the regency during Philip's absence; and at eighteen he showed what he could do as a warrior by defeating the Theban Sacred Band on the field of Chæroneia.

Grave difficulties beset him on his accession; but he was master of them all. He obtained the same leadership (hegemony) of the Greeks which had been granted to his father; suppressed swiftly all attempts at rebellion; stormed and razed Thebes, massacred and sold the inhabitants into slavery, but, with the beautiful sympathy of genius, "bade spare the house of Pindarus." This terrible decisiveness subdued all Greece. In the spring of 334 he set forth on his great adventure, crossed the Hellesport with his army of 35,000 men unopposed, visited the supposed site of Troy, and by the victory over the Persians on the Granicus became master of part of Asia Minor. He had, however, much fighting to do there till the next spring (333), when he advanced into the Persian empire. He cut the famous Gordian knot, and defeated Darius at Issus, taking, among a host of captives, the family of the king. He next marched into Phœnicia, and during the ensuing year and a half besieged Tyre and Gaza, and reduced Egypt. After the fall of Tyre he is said to have hanged 2000 of the citizens. The story told by Josephus, that on his way he visited Jerusalem, is not confirmed by other historians. In Egypt he displayed his far-sighted aims by the foundation of a new

capital, Alexandria, the history and importance of which in after ages justified, perhaps surpassed, his anticipations. Meanwhile Darius had assembled another host; and in 331, after visiting the oracle of Ammon in Libya, by which he was recognized as son of Zeus, Alexander marched into Persia, met and defeated Darius again at Gaugamela, pursuing him to Arbela, and leaving him a fugitive without a kingdom. Babylon, Susa, and Persepolis made but slight resistance, and surrendered to the conqueror, with their immense treasure. Darius was soon after murdered by some of his officers. Advancing further eastward and northward, Alexander conquered Bactria and Sogdiana, and arrived at the Indus. Meanwhile he had been guilty of putting to death, on frivolous pretexts, some of his truest friends, Philotas, Parmenion, and Clitus. The last he slew with his own hand in a drunken rage (326). Crossing the river, he encountered and defeated Porus, crossed the districts now called the Punjaub, and reached the Hyphasis (Sutlej). His own ambition was to press on and conquer India, but his troops refused to go further. therefore, no choice but to retrace his steps to the Hydaspes. Here he had a fleet built, with which he made the descent of the Indus to the ocean; then marched through the deserts of Gedrosia into Persia, the hardships of this march costing him enormous losses. Meanwhile his friend Nearchus, who was made admiral of the fleet, had successfully accomplished the hazardous voyage from the Indus, up the Persian Gulf, to the Euphrates. They met again at Susa, where rest was to be taken, and some important measures to be adopted with a view to as complete a union as possible of the Greek and Asiatic races. One of these measures was the intermarriage of the Macedonian soldiers with Asiatic women. A great festival was held, in which Alexander set the example, by marrying Statira, daughter of Darius, his principal officers taking as their wives noble Persian and Median ladies. Ten thousand private soldiers followed these high examples. Susa witnessed also another astonishing spectacle of a very different kind: the voluntary death of the Indian philosopher, Calanus, by burning on a funeral pile. He was past seventy, and being seized with illness for the first time, chose to die rather than prolong a useless life by artificial means.

Alexander had to deal with serious discontents among his troops. A mutiny broke out, which by remorseless resolution he quelled, and 10,000 veterans were discharged. After this he marched to Ecbatana, where his special friend Hephæstion died; and in the spring of 323 he reached Babylon, which was to be the capital of his vast empire. He had now attained the climax of his glory. There were signs that he had not passed unharmed through the ordeal of success. His grief over the death of Hephæstion was carried to a wild excess; and the mourning and funeral ceremonies were on a scale of stupendous extravagance. For himself, he now claimed divine honours, and they were conceded. But

energy and activity did not fail. His imagination was busy with vast new projects, and his subjects with preparations for carrying them out. He was gay at banquets, and drank to excess. Meanwhile, there were fluttering about him presages and omens that gave him pause; fever laid its hand upon him. The twentieth day of his illness he ordered his bed to be moved near the great bath: here he talked to the generals about vacancies in the armies, desiring them to be filled with experienced officers. The twenty fourth day he was much worse, but was carried to assist at the sacrifice: the twenty-eighth he died.

Alexander's life was of hardly thirty-three years; his reign of less than thirteen. Such achievements as his in so brief a space are unparalleled. His empire, it is true, was broken up; but great Greek kingdoms were formed of its fragments. Greek cities and colonies were founded everywhere, from the Libyan Oasis to the Jaxartes; and the Greek tongue, most rich and copious of all, became the universal speech of government and literature. So that when the religion that was for all nations was preached and taught, its evangelists and apostles spake and wrote in the language of Alexander, and we have a Greek Testament from the pens of Hebrew men. The sudden enlargement of men's geographical knowledge was paralleled in no age, except in that of Columbus; and so wide and fruitful intercourse between civilized nations was opened as had never been possible or dreamed of before.

[For an interesting view of the scientific results of Alexander's campaigns, see Humboldt's "Cosmos," vol. ii.]

CHRONOLOGY.

B.C.		Age	B.C. Age
356	Born at Pella.		330-28 Conquest of Parthia, Media,
342	Placed under Aristotle	14	Bactria 26-28
338	Fought at Chæroneia	18	329 Against the Scythians; win-
336	Succeeded father as king	20	tered at Bactria 27
335	Subdued Greeks; destroyed		328 Campaign in Sogdiana; win-
	Thebes	21	tered at Nautaca 28
334	Made war with Persia; crossed		327 Campaign in Bactria 29
	Hellespont	22	326-24 Invaded India; overran
333	Defeated Darius at Issus;		Asia 30-32
	began siege of Tyre	23	325 Reached Persepolis and Cuza. 31
332	Took Tyre; conquered Syria		324 Returned to Babylon; pro-
	and Egypt; founded Alex-		jected fresh conquests 32
	andria		323 Died at Babylon 33
331	Defeated Darius at Gaugamela		·

and Babylon 25



HANNIBAL.

247-183 в.с.

THE CARTHAGINIANS.

"The Phœnicians directed all the resources of courage, acuteness and enthusiasm to the full development of commerce and its attendant art of navigation, manufacturing, and colonization, and thus connected the East and the West. At an incredibly early period we find them in Cyprus and Egypt, in Greece and Sicily, in Africa and Spain, and even on the Atlantic Ocean and the North Sea. The field of their commerce reached from Sierra Leone and Cornwall in the west eastward to the coast of Malabar. Through their hands passed the gold and pearls of the East, the purple of Tyre, slaves, ivory, lions' and panthers' skins from the interior of Africa, frankincense from Arabia, the linen of Egypt, the pottery and fine wines of Greece, the copper of Cyprus, the silver of Spain, tin from England, and iron from Elba. The Phœnician mariners

supplied every nation with whatever it needed or was likely to purchase, and they roamed everywhere, but always cherished the hope of returning to the narrow home to which their affections clung."

The life of Hannibal is the story of a people in many respects the noblest and most advanced in antiquity, when at the height of its power aiming at the supremacy of the world, and not only failing in the attempt, but losing its own life. With the fall of Carthage commercial civilization was extinguished, and military civilization for a thousand years occupied its place.

Hannibal, the greatest warrior of ancient time, was a Carthaginian, the son of Hamilear Barca, the great statesman and general by whom Spain was first brought under the influences of order and industry. When a mere boy, Hannibal accompanied his father on his expeditions to that country, and after his death, being still young, served under his brother-in-law Hasdrubal, and became the idol of the army on account of his great bravery, and the strong resemblance he bore to his father. He showed so much capacity and valour that after the assassination of Hasdrubal, the army elected him to the command, amidst the most lively acclamations, which election was confirmed by the senate of Carthage.

Veiling his real design of making war against the Romans and Rome Hannibal began at first the work of the entire subjugation of Spain, and after the first astonishing successes most of the cities submitted without a siege. In less than three years he had subdued all the tribes of Spain and returned triumphant to Carthage, when he set about raising a power ful army to carry into effect his mighty project of crossing the Pyrenees and the Alps and attacking the Romans in the midst of Italy. Providing for the safety of Africa, and leaving an army in Spain under his brother Hasdrubal, he began his march with 90,000 foot, 12,000 horse, and forty elephants; crossed the Pyrenees, quickly dispersing an army of Gauls who disputed his passage. Avoiding the army of Publius Scipio sent to check him, he arrived at the summits of the Alps, and having in fifteen days effected a passage, he drew up his forces on the plains of Pignerol. This terrible march had reduced his army to 26,000 men, who resembled shadows rather than soldiers, but he had no space or time to recruit, being forced to fight for every inch of ground he occupied. Soon the taking of Turin by assault gave him relief and the opportunity to recruit his troops, and make a treaty with the Cisalpine An engagement with Publius Scipio was crowned with victory, but immediately the army under Sempronius confronted him. he vanquished, inflicting great loss on the Romans.

On coming out of winter quarters in Cisalpine Gaul he put in practice a plan for crushing the consul Flaminius before he could be joined by his colleague, and by a masterly strategy of counterfeited marches engaged them near Trasimenus, where the Romans were entirely routed,

15,000 captives falling into the hands of the Carthaginians. Here Hannibal showed himself not only mighty in battle but politic and merciful in conquest. The moment of decisive victory, he called the soldiers from the carnage and ordered a search among the slain for the body of Flaminius, that he might do him funereal honours; and he set free all the Italian prisoners without ransom.

After this he settled in the plains of Adria and sent the news to Carthage. Rich with spoil, and with his troops newly equipped and reorganized, he penetrated into Apulia, spreading consternation on all sides. The Romans now depended on Fabius Maximus, who sought by temporizing to wear out the vigour of the Carthaginians, whom they dared no longer encounter. To reduce his army or make it quit the country Fabius succeeded in forcing Hannibal to make futile marches, and really inveigled him into the same kind of a snare that had cost Flaminius his life; but the superior craft of Hannibal enabled him to extricate himself. The Roman people, discontented with the tardiness of Fabius, now forced him to divide the command with Minutius Felix, his general of horse. More hazardous than Fabius, he risked an engagement, and would have perished had it not been for the succour of his colleague, who now persuaded him to adopt his policy. The consuls immediately succeeding accomplished nothing against this invincible foe. But finally came Turentius Varro. Hannibal was at this time encamped at Cannæ, and here the Romans were reduced to the necessity of a combat. It is said 86,000 Roman soldiers were drawn up in battle array, but the superior genius of Hannibal was more than a match for Roman valour, and this most bloody and celebrated battle resulted in little less than the annihilation of this powerful Roman army. Republic was brought to the verge of despair.

A short extract from Polybius exhibits the clemency and humanity of the victor after this battle. "He addressed the captive Roman allies in terms of kindness, as he had done before at the Trebia and the lake Trasimenus, and dismissed them without a ransom: then he addressed the Roman captives, who were called to him, in very gentle terms: That he was not carrying on a war of extermination with the Romans, but was contending for honour and empire. That his ancestors had yielded to the Roman valour, and that he was endeavouring that others might be obliged to yield in their turn to his good fortune and valour together. Accordingly he allowed the captives the liberty of ransoming themselves, and that the price per head should be 500 denarii for a horseman, 300 for a foot soldier, and 100 for a slave."

Enfeebled and reduced to 36,000 men, Hannibal was not in a position to push on to Rome, and so withdrew to Capua, where he sought to strengthen himself, and succeeded in maintaining his army some years longer in Italy. Although no general dared encamp before Hannibal, yet

the Romans gained some successes in Spain, and put a bound to his conquests by raising new legions and showing themselves, as usual, superior to the reverses of Fortune. On account of envious factions in Carthage, Mago, the brother of Hannibal, was unable to obtain reinforcements for him, and Hannibal saw himself compelled to rest on the defensive. Two armies were sent against Capua, and Hannibal, hoping to conquer both by a bold diversion, led out his troops as if to march on Rome, and encamped before it 211 B.C. But being unable to effect anything there, he was forced to abandon the territory, and lost Capua besides. This success of the Romans at Capua gave them an evident superiority, and induced all the tribes of Italy to declare for them; but the defeat of the consul Fulvius somewhat diminished their exultation. Shortly after this, Favius Marcellus engaged the Carthaginians for three days in battle, and retook Tarentum; but Hannibal on his side defeated Sempronius Gracchus and surprised Marcellus by an ambuscade.

But no reverses seemed capable of changing the policy of the Romans. Claudius Nero was now elected consul, and with fresh forces took the field, attacking Hannibal even in his camp. Hannibal did not offer battle to Nero, as he was waiting for Hasdrubal to join him with forces from Spain. But Nero went to Upper Italy, and defeated Hasdrubal; and instead of the expected succours, the Carthaginians were horrified by seeing the bloody head of their general's brother thrown into their camp by the exulting Romans. Hannibal withdrew to Bruttium, fighting his way and maintaining his usual success. But Rome had reconquered Sicily and Spain, and, under Scipio, had carried the war into Africa. Carthage was trembling, and Hannibal was recalled. In 205 B.c. he embarked his troops, turning many lingering looks on that beautiful country where for sixteen years he had maintained himself alone against all the forces of Rome, and where, at the news of his departure, the Romans, as may be imagined, greatly rejoiced.

Hannibal was no sooner landed at Carthage than he was pressed by the citizens to come to an immediate action, as the enemy were encamped at Zama, within five miles of them. But he thought of making a treaty, and demanded an interview with Scipio, who, speaking as the conqueror, and offering him impossible terms, so wounded the pride of Hannibal that he resolved that arms should decide the contest. The two armies engaged, and Hannibal, the hitherto unconquerable, was overcome and fled to Adrumetium. Here, little by little, he collected forces enough to arrest the progress of the conqueror, and by a powerful address succeeded in making the Senate consent to accept terms of peace.

After the conclusion of a treaty Hannibal was given the command of an army in the interior of Africa, but Rome demanded his recall, and he became engaged in the government at home. He corrected many abuses in the government, but an envious faction accused him of treating with Antiochus of Syria against Rome, and he had only time to flee before the ungrateful citizens attacked his palace and he was declared banished.

From Cercine Hannibal went to Tyre and then to Ephesus, where he persuaded Prince Antiochus to declare war against the Romans. Carthage refused to break her league with Rome, but Antiochus resolved to pursue the war, and confided to Hannibal the direction of the fleet, soon after, however, concluding a shameful peace, and promising to deliver Hannibal to the Romans. The illustrious Carthaginian fled, took refuge at the court of King Prusias, where he became the centre of a powerful league formed against Eumenes, King of Pergamus and ally of Rome. Many victories followed on sea and land, but Asia still trembled at the name of Rome, and even Prusias was not proof against the ambassadors of the Eternal City who came to demand either Hannibal or his death. To the last moment the hero preserved his noble spirit, and when choosing to die by poison rather than fall into the hands of his enemies, he said, "I will deliver the Romans from the terror which an old man inspires in them, who dare not await his death. They once had the generosity to warn Pyrrhus of a traitor who would poison him, but now they have the baseness to send a consul to demand of Prusias to make away with his guest and friend." It was in his 64th year, 185 B.C., that Hannibal died by poison administered by himself.

Polybius, after having proposed Hannibal as a model of all warriors, says, "What a man! what eleverness in the art of conducting armies! What a grand soul merits our admiration when Nature renders it proper to execute all that which it pleases to undertake!" This judicious historian appears persuaded that Carthage would have become the mistress of the world, if Hannibal had commenced by subjugating all other nations before attacking Rome. In effect gifted with a courage mingled with wisdom and an indefatigable activity, he planned and executed, at the age of twenty-six, a military plan, the boldest which has ever been conceived by the genius of man. He carried the war to the bosom of Rome even, of Rome in all her force. Nothing arrested him, neither the Spanish army, the Pyrenees, the rivers, nor the eternal glaciers of the Alps. It is in vain that Rome reunites against him all her efforts, that she sends to oppose him the Fabii, the Æmilii, the Marcelluses, and the Scipios,-Hannibal, alone, balances the fortune of so many illustrious captains: he maintains discipline in an army formed of twenty diverse nations, defeats all the Roman armies, and during sixteen years menaces the Capitol.

"His contemporaries tried to cast stains of all sorts upon his character; the Romans charged him with cruelty, the Carthaginians with covetousness; and it is true that he hated as only Oriental natures know how to hate, and that a general who never fell short of money and stores can

hardly have been other than covetous. Nevertheless, though anger and envy and meanness have written his history, they have not been able to mar the pure and noble image which it presents. Laying aside wretched inventions which furnish their own refutation, and some things which his lieutenants, particularly Hannibal Monomachus and Mago the Samnite, were guilty of doing in his name, nothing occurs in the accounts regarding him which may not be justified in the circumstances, and by the international law of the times; and all agree in this, that he combined in rare perfection discretion and enthusiasm, caution and energy. He was peculiarly marked by that inventive craftiness which forms one of the leading traits of the Phœnician character. He was fond of taking singular and unexpected routes; ambushes and stratagems of all sorts were familiar to him: and he studied the character of his antagonists with unprecedented care. By an unrivalled system of espionage—he had regular spies even in Rome-he kept himself informed of the projects of the enemy. He himself was frequently seen wearing disguises and false hair in order to procure information on some point or other. Every page of the history of the times attests his genius as a general: and his gifts as a statesman were, after the peace with Rome, no less conspicuously displayed in his reform of the Carthaginian constitution, and in the unparalleled influence which as an exiled stranger he exercised in the cabinets of the Eastern powers. The power which he wielded over men is shown by his incomparable control over an army of various nations and many tongues—an army which never in the worst times mutinied against him. He was a great man; wherever he went he riveted the eyes of all."

B.C.		Age	B.C.	Age
247	Date of birth.		212 Seized Tarentum	35
238	Accompanied his father to		211 Marched to Rome; raised the	
	Spain	9	siege	36
229	At the battle when his father		209 Lost Tarentum	38
	was killed	18	208 Raised siege of Locri	
221	Succeeded Hasdrubal as com-		207 Retired to Bruttium	
	mander-in-chief	26	203 Recalled to Africa	44
220	Defeated Vaccaans	27	202 Defeated by Scipio at Zama .	45
	Besieged Saguntum		201 Chief magistrate of Carthage .	46
	Set out for Italy; defeated		193 Accused of negotiations with	
	Scipio and Sempronius	29	Antiochus	
217	Defeated Flaminius and Ser-		190 Defeated by Rhodian fleet	
	vilius	30	183 Takes refuge with King of	
216	Defeated Æmilius Paulus and		Bithynia; demanded by	
		31	Romans; death by poison .	
215	Took Canna			



CÆSAR.

100 B.C.

THE ROMANS.

A GREAT man of his age is, according to Hegel, the spirit the most clairvoyant, the heart the most firm, the hand the most clever; he has perceived, still veiled, but already formed in the bosom of things, the truth which belongs to that age. He it is that shall disengage it, that shall make it triumph: he is formed for that need; he speaks and they listen; he marches, they follow; he is the force around which the other forces naturally group themselves. From this theory of great men and revolutions, Hegel has taken the justification and glorification of Cæsar.

"The great man," says M. Cousin, "the providential man, is a being in which all the world recognize themselves, because he expresses the thoughts of all, clearer and more completely than any other. This is his veritable pedestal. It is from the height of this general spirit, and

common to all, that he commands all. That which makes the man great is the intimate, spontaneous, irresistible belief that this man represents the people, the country, the epoch. But the great man does not represent alone his country or his epoch; he represents a special idea, that he is called to make triumph. For that he arrives on the scene of history just at the moment when his presence is necessary; disappears when his work is finished. To these diverse characteristics there is joined a third, which follows the others. To do the work to which he is called, the great man needs a great power. This power he has pushed into the ascendant, which he exercises on the masses, who see in him their image, their ideal. A fourth characteristic of the great man is that he succeeds: without success there could be no utility; he could not leave great results, he could not be a great man. These four distinctive characteristics complete themselves by a fifth; it is the glory, the recompense of great actions, which must surely follow. The great results are visible to all eyes. Glory, the daughter of great deeds, is as manifest as the deeds themselves. Glory is the judgment of Humanity, which is a final judgment."

The birth of Cæsar was a hundred years previous to that of Christ. He belonged to an illustrious patrician family, but was allied to the middle classes, through his aunt's marriage to Marius. He grew up in the midst of civil wars; at fourteen was priest of Jupiter, but being banished some time after by Sylla, joined the army and was sent to Bithynia. Here he saw military service under the Roman prætors, and remained in Asia till the death of Sylla. Then, simply observing the position of affairs at Rome, he passed on to Rhodes to study eloquence under the rhetorician Molo, with whom Cicero also studied.

In 74 B.C., re-returning to Rome, he was elected member of the College of Pontiffs, and set about gaining the good-will of the populace by the usual means, neglecting nothing that could pave the way for his elevation. He was named successively military tribune, quæstor, ædile. He astonished the citizens by his profuse liberality, and gained more surely the affections of the plebeians and soldiers by reinstating the statues of Marius, which had been proscribed by Pompey. Although he was suspected of being at least cognizant of the designs of Cataline against the Government, he was not indicted, and in 61 B.C. departed to the governorship of farther Spain, Crassus becoming responsible for his immense debts.

Arrived in Spain, he commenced immediately to subdue the inhabitants, and in a short time had enriched himself and his troops with spoil. Returning to Rome, he formed an alliance with Pompey and Crassus for the joint maintenance of power, the triumvirate. He married his daughter to Pompey, to cement the political alliance, and beholding Rome given up to factions and contests between Crassus and Pompey, he departed with an army to gain glory and riches by CÆSAR. 391

subduing the Gauls. During the nine years that he engaged in this war, he accomplished the most prodigious results, subjugating the different tribes from Provence to Holland and the Rhine, crossing the mountains of Jura and Auvergne, the oak forests of Gaul, and penetrating even to England. It is said two millions of lives were sacrificed, and that all the riches of Gaul passed into his hands, much of which went to keep up his popularity in Rome during his absence. After showing himself to the Gauls in the light of a terrible conqueror, he changed his policy, and, clement and humane, diminished their tributes, composed a legion of their best warriors, and entirely gained their affections.

But a few Romans, while his liberalities and glorious conquests completely gained the majority, sought to retrench his power, and so far succeeded that the Senate decreed he should disband his legions, giving the defence of the State into the hands of Pompey. Cæsar was at Ravenna when this decree was passed, and though he had but five or six thousand soldiers with him, he determined to march immediately to Rome, to re-establish the tribunes in their dignity, and, as he affirmed, to render liberty to the people oppressed by factions. The Rubicon once passed, sixteen days' rapid marching sufficed to bring him near Rome, but Pompey had evacuated with his forces and a great concourse of magistrates, senators, and citizens, retreating to Brundusium. Here Cæsar followed him, when Pompey took ship for Epirus.

Though Caesar was master of Rome he had no navy to follow Pompey, so marched quickly into Spain, where his enemies had devoted troops, and in a short time had subjugated the province, returned to Italy, and conducted a part of his army in the captured vessels to Epirus. With a much inferior force he succeeded, at the memorable battle of Pharsalia, in crushing Pompey and his senatorial army, and pursued him to Egypt, where, Pompey having been assassinated, he turned his arms against Ptolemy, and established Cleopatra on the throne. With the same successful rapidity he carried out an expedition against the son of Mithrades, after which he appeared in Rome and filled the magistracies with his devoted friends, liberally rewarded his colleagues and soldiers, and hastened to Africa to complete the downfall of the Republican party, which was accomplished at the battle of Thapsus, 46 B.C.

For the fourth time he returned to Rome in triumph, and so great was his ascendency that he was able to absorb in himself all the power under divers names. He was consul, prefect, perpetual dictator, prince, and imperator. He granted a general amnesty, and pardoned almost all those who had carried arms against him. The following year he completely crushed the party of Pompey by defeating his sons in Spain.

But his victory had not solved any of the problems which existed at bottom, nor brought any remedy to the wounds which were festering in

Roman society. There were still the miserable plebeians, military factions, a devouring aristocracy, despoiled provinces, and, lastly, an Italy where invasion and multiplication of slaves had gradually extinguished the free cultivators of the soil, and ruined agriculture. measures which Cæsar instituted to reform these abuses showed that he was aristocratic by nature as well as by birth; yet he made many useful laws, restrained extravagance, conferred the right of citizenship on those who exercised the liberal professions at Rome, sent poor families to found colonies, revived Carthage and Corinth. He reformed the calendar. Many projects of public utility were not realized on account of his early death. He was surrounded by the most lively envy, and his death was soon brought about by men who had accepted his amnesty, and who had been pardoned and put in positions of honour. They could accept his pardon, but could not endure the signs of his growing despotism, as they called it, and a conspiracy, with M. Brutus and Cassius at its head, was formed, which treacherously and surely carried out the well-arranged plot.

We conclude the article with the following from Froude:-

"Of Casar it may be said that he came into the world at a special time and for a special object. The old religions were dead, from the Pillars of Hercules to the Euphrates and the Nile, and the principles on which human society had been constructed were dead also. There remained of spiritual conviction only the common and human sense of justice and morality; and out of this sense some ordered system of government had to be constructed, under which quiet men could live and labour and eat the fruit of their industry.

"Such a kingdom was the Empire of the Cæsars, a kingdom where peaceful men could work, think, and speak as they pleased, and travel freely among provinces ruled for the most part by Gallios who protected life and property, and forbade fanatics to tear each other in pieces for their religious opinions.

"And this spirit, which confined government to its simplest duties, while it left opinion unfettered, was especially present in Julius Cæsar. From cant of all kinds he was totally free. He was a friend of the people, but he indulged in no enthusiasm for liberty. He never dilated on the beauties of virtue, or complimented, as Cicero did, a Providence in which he did not believe. He was too sincere to stoop to unreality. He held to the facts of this life and to his own convictions; and as he found no reason for supposing that there was a life beyond the grave, he did not pretend to expect it. He respected the religion of the Roman State as an institution established by the laws. He encouraged, or left unmolested, the creeds and practices of the uncounted sects or tribes who were gathered under the eagles. But his own writings contain nothing to indicate that he himself had any religious belief at all. He saw no

evidence that the gods practically interfered in human affairs. He never pretended that Jupiter was on his side. He thanked his soldiers after a victory, but he did not order *Te Deums* to be sung for it; and in the absence of these conventionalisms he perhaps showed more real reverence than he could have displayed by the freest use of the formulas of pietism.

"He fought his battles to establish some tolerable degree of justice in the government of this world; and he succeeded, though he was murdered for doing it."

3.C.	Age	BC. Age
100	Date of birth.	58-56 Conquest of Gaul 42-44
	Flamen Dialis 13	55 Invaded Britain 45
82	Deprived of priesthood by Sylla 18	49 Commanded to disband his
	Accused Dolabella; captured	army; war declared 51
	by pirates 24	48 Defeated Pompey at Pharsalia . 52
74	Pontiff 26	47 Nominated dictator; conquered
	Military tribune 27	Egypt 53
	Elected quæstor 32	46 Dictator for ten years; reformed
	Curule Ædile 35	calendar 54
	Pontifex Maximus 37	45 Defeated sons of Pompey; de-
	Prætor	
		44 Assassinated 56
	Consul: triumvirate 40	



CHARLEMAGNE.

A.D. 742-814.

THE FRANKS.

In the eighth century, on the ruins of the Roman and beneath the blows of the barbaric world, the Gallo-Frankish nation, vast and without cohesion, brutish and ignorant, was incapable of bringing forth with the aid of its own wisdom and virtue a stable government. Hosts of different forces, without enlightenment, and without restraint, were everywhere and incessantly struggling for dominion, or were ever troubling and endangering the social condition. Let there but arise in the midst of this chaos of unruly forces and selfish passions a great man, one of those elevated minds and strong characters that can understand the essential aim of society and then urge it forward, and at the same time keep it well in hand on the roads that lead thereto, and such a man will soon seize and exercise the personal power almost of a despot, and people will

not only make him welcome, but even celebrate his praises. Such was the empire of Charlemagne. Among annalists and historians, some, treating him as a mere conqueror and despot, have ignored his merits and his glory; others, admiring him without scruple, have made him a founder of free institutions—a constitutional monarch. Both are equally mistaken: Charlemagne was indeed both a conqueror and a despot; but by his conquests and personal power he saved Gallo-Frankish society from barbaric invasion without and anarchy within. That is the characteristic of his government and his title to glory.

The Romans came into hostile contact with German tribes during Cæsar's campaigns in Gaul (B.C. 55). In A.D. 9 the German hero Arminius (Hermann), at the head of his confederated countrymen, encountered the Roman commander Varus at the head of three legions, and in a three days' fight, in a region of wooded hills, defeated and destroyed the whole army. The centuries of imperial Rome are full of the din of conflict between the forces of the two peoples, the one declining, the other waxing mightier. Rome at length ceased to be a seat of empire, and for three centuries was subject to the emperors of the East. A new religion has superseded the old Paganism, and on the seven hills is throned a new Power, claiming to be its representative and chief. And at length the empire of the West was re-established, and the emperor was a German king.

Charles the Great, who in after-times came to be called by the French name "Charlemagne," was born at Salzburg, in Bavaria, in 742. He was the son of Pepin the Short, first king of the Franks of the second (Carolingian) line, and grandson of Charles Martel, the hero whose victory near Tours, in 732, saved Europe from subjugation by the Saracens, On the death of Pepin, in 768, his dominions were divided between his sons Charles and Carloman, the former taking Neustria, Burgundy, and Provence. To these was soon added by conquest Aquitaine. In 770 Charles married the daughter of Desiderius, king of the Lombards, but repudiated her in the following year, and married Hildegarde, a German princess. At the close of 771, by the death of Carloman, Charles became sole King of the Franks, his kingdom, Francia, extending from the English Channel to the Mediterranean. In 772 he made war on the Saxons; and this was the beginning of a conflict which was not really ended till 803, when a last revolt was suppressed. Conquest and compulsory conversion to the Christian faith were the objects of these wars; and the Pagans were treated sometimes humanely, sometimes with remorseless cruelty. In 782 Charles had 4500 of them massacred.

In 773, when the Lombards were threatening Rome, the Pope invited the aid of Charles, as his predecessor had that of Pepin. Charles passed the Alps, overthrew the Lombard kingdom, and assumed the crown himself (774). He was acknowledged as Patrician of the Romans, and

bore rule over nearly all Italy. In the next few years he was fighting, now the Saxons, now insurgents in Italy; then the Saraceus in Spain, conquering parts of the country, but was defeated by the Gascons while repassing the Pyrenees at Roncesvalles. This battle, and the death of the hero Roland, became a favourite theme of romance and song, and the nucleus of a mass of legendary lore. Three years later he went to Rome. and had his two sons crowned by the Pope. Afterwards we find him beyond the Elbe, victorious over the Avars. In this period of his active life he projected a canal to join the North Sea and the Euxine. power was felt in the English kingdoms. Just before Offa of Mercia extended his sway in all directions, Boniface had been preaching to the Pagans in Germany, and English affairs began to interest the Franks. The policy of Charles led him to receive at his Court the enemies of Offa. and among the refugees was Egbert, afterwards king of the English. seemed likely that war might break out between Offa and Charles, but this was happily averted by the influence of an English scholar present at the Court of Charles, Alcuin.

For Charles was not a mere conqueror, a ravager and slaughterer, like Timur and Attila. He was a civilizer, too. His views were large and his aims high. He desired to see education and discipline spread among his subjects, and by various edicts, and by the establishment of schools and encouragement of learned men, he provided for this. Roman culture had long perished in Gaul; a new culture had arisen, the monastic, with poor aims and miserable limitations; and this, too, was lost. And now another beginning was made in the Palace School, and others on like bases. Especially noteworthy is the Capitulary of the year 787, which provided for a higher standard of education, and is called by Ampère "the Charter of Modern Thought."

The Capitularies of Charlemagne bear the marks, it must be confessed, of a rude and primitive age. Three or four specimens are cited by historians.

"Covetousness doth consist in desiring that which others possess, and in giving away nought of that which oneself possesseth; according to the Apostle, it is the root of all evil."

"Hospitality must be practised."

"If mendicants be met with, and a labour not with their hands, let none take thought about giving unto them."

"Beware of venerating the names of martyrs falsely so called, and the memory of dubious saints."

In Guizot's "History of Civilization in France," there is a list of the names and works of twenty-three men of the eighth and ninth centuries who have escaped oblivion by being found grouped around Charlemagne. "Those whom he did not employ at a distance, formed a learned and industrious society, a school of the palace, devoted rather to conversation

than teaching. Two of its great men, Alcuin and Eginhard, have remained justly celebrated. Alcuin was the favourite and learned adviser of Charlemagne. 'If your zeal were imitated,' he said to the king, 'one might see arise in France a new Athens—the Athens of Christ.' The members of this school had all assumed illustrious pagan names:—Alcuin called himself Flaccus; Angilbert, Homer; Theodulph, Pindar. Charlemagne called himself, from Hebrew history, David; while Eginhard was Bezaleel," &c.

Having thus won his way to a true overlordship of almost all Western and part of Central Europe, Charles went once more to Rome, in 800; and there, at the hands of the Chief of the Western Church, he received recognition as Chief of the Western Empire. The Roman Empire was now finally divided, and in 803 a treaty was concluded, by which the limits of the two empires were defined. The German emperors did not make Rome their seat of Government, but henceforth coronation at Rome by the Pope was an indispensable condition of the imperial dignity. In 806, in a diet held at Thionville, a plan was prepared for the division of the Western Empire, on the death of Charles, between his three sons. It was frustrated by the deaths of two of them. In 813 he associated his son Ludwig (Lewis) with him in the empire, and in January, 814, Charles died at Aachen (Aix-la-Chapelle), and his remains were interred with great pomp in the cathedral.

On occasion of a visit of Frederick Barbarossa, in 1165, to the tomb of Charles the Great, whom he professed to take for his model, Charles was canonized by the anti-Pope, Paschal III. In 1215, Frederick the Second was crowned at Aix-la-Chapelle, and after a solemn mass in the cathedral he placed the bones of his great predecessor Charles in a precious reliquary of silver, which is still preserved under the dome.

The most trustworthy account of this great man is the "Vita Caroli Magni," by his contemporary and friend, Eginhard.

A.D.		Age		ge
742	Date of birth.		781 Visited Rome; son Pepiu	
751	Crowned by Pope Stephen II.	12	crowned King of Italy	
	With Carloman, King of France		782 Revolt and defeat of Saxons .	
	Conquered Aquitaine		788 Conquered Bavaria	46
	Sole king		794 Founded University of Paris;	
	Began war with the Saxons .		Council at Frankfort	52
	Successful in Italy		796-99 Expelled Saracens; re-	
	Visited Rome; proclaimed		established the Pope 54-	-57
	King of Italy		800 Crowned Emperor of the West	,
776	Received submission of the		by Leo III	58
	Saxons		808 First descent of the Normans.	66
778	Subdued Northern Spain		813 Called five councils to regulate	
	Defeated Saxons under Witi-		Church affairs	
	kind	38	814 Died at Aix-la-Chapelle	72



ALFRED THE GREAT.

а.р. 849-901.

THE SAXONS.

It is really and reasonably astonishing to think that Alfred the Great, whose figure looms so large in the field of history, whose name we pronounce with those of Alexander and Charles, lords of the vastest empires, was king, not of England even, but of the West Saxons only, and of that small part of the little island in which they had established themselves. But limited as his field of action was, he found it large enough for a noble life as man and as king, and for the satisfying of his deepest longing,—"to live worthily, and to leave to the men that come after a remembrance of him in good works."

Alfred was born at Wantage in Berkshire, in 849. He was the grandson of the great Egbert, who had before his death been recognized as over-lord of all the English kingdoms (*Bretwalda*), and the fourth and youngest son of Ethelwulf by his wife Osburga, of the race of

Cerdic. He was the favourite son, and in his fifth year was sent to Rome, and was presented as future king to the Pope, Leo IV. years later (855) he was again at Rome with his father and remained there a year. In his twentieth year he married. Whatever may have been his father's intention, Alfred saw his three brothers successively crowned before himself; but on the death of Ethelred, last of the three, he was declared king (871). It was a rough and troublous time. The events of three centuries earlier were repeating themselves. The Northmen, now called the Danes, had for thirty or forty years been again making descents upon the English coasts, and renewing all the old horrors of piratical warfare. Alfred had taken active part with Ethelred in the conflict, and now his most pressing duty was to continue it. In the first year of his reign he fought nine or ten battles with the Danes; apparently unvictorious; for he was obliged to make peace with them, and could not prevent their overrunning the rest of the country and making their winter quarters in London. In 875 he defeated them at sea, and the next year had to make peace with them at Wareham. They then took Exeter, and the Welsh joined them. The city was retaken by Alfred in 877; but the next year his kingdom was overrun by the invaders and he became a fugitive in the woods. He took refuge with a small band at Athelney and built a fort, from which he made occasional attacks on the enemy. In May he defeated them at Ethandun and took their camp. Peace was then concluded at Wedmore; a large part of the country was ceded to the Danes, and Guthrun of East Anglia, their leader, with many other of his best men, were baptized. Wessex was thus delivered, but the work of Egbert was undone, and Alfred was King of Wessex, and nothing more.

He now applied himself to providing for the defence of his kingdom, and the most memorable of his measures was the creation of a fleet. He also provided for its better government, by a code founded on the laws of Ina and Offa, the Ten Commandments and some other parts of the laws of Moses being added to it. The administration of justice was reformed, and as far as possible the "wild injustice of revenge" was suppressed. Alfred had the insight into character which guided him well in selecting the right men to assist him. All his desires and all his energies were concentrated on his task of promoting the welfare of his people. The historian has to honour him as the great example of a king who renounced all personal ambition and lived for his subjects alone. One subject, above all others, that gave him sad and serious thought was the deplorable ignorance that prevailed around him. In contrast with a glorious Past, when Britain was a conspicuous seat of learning, the Present was dark indeed. He established and directed a school for young nobles; had other schools founded, and summoned competent men from France to teach in them.

This was not all. He knew the worth of books, and determined to bring within the reach of the people such treasures as hitherto the clergy alone had access to. He translated into the English tongue, with such alterations as seemed desirable, the work of Boethius on the "Consolations of Philosophy," the "Pastorale" of Gregory the Great, the "General History of Orosius," and Bæda's "Ecclesiastical History." With these translations by Alfred the Great, English prose literature begins. And with the "English Chronicle," which took its final shape in his reign, possibly under his hand to some extent, English history begins. The Chronicle is "the first vernacular history of any Teutonic people, the earliest and most venerable monument of Teutonic prose." (Green.)

Alfred, however, had more fighting to do yet. In 893 a large body of Danes under Hastings landed in Kent, and fresh struggles tasked his energies for several years. They were defeated by Alfred at Farnham, by Ethelred at Bemfleet; were besieged in Chester and driven away; and in 897 they broke up their army and the war was virtually ended. The war was accompanied and followed by a pestilence which caused a great mortality, disheartening the people more than the war had done. The great king did not long survive. He died on the 26th of October, 901. His remains were interred at Winchester, and his eldest surviving son, Edward, reigned in his stead. In 1693 a beautiful specimen of gold enamelled work, bearing the inscription, "Alfred had me made," was found near the place of his retreat at Athelney. It is known as "Alfred's jewel," and is kept in the Ashmolean Museum at Oxford.

Alfred is the best example of the people's hero. Even in the history written in our own day, we read such panegyrics as the following: 'What really gave England heart for such a struggle was the courage and energy of the king himself. Alfred was the noblest as he was the most complete embodiment of all that is great, all that is lovable in the English temper. He combined, as no other man has ever combined, its practical energy, its patient and enduring force, its profound sense of duty, the reserve and self-control that steadies in it a wide outlook and a restless daring, its temperance and fairness, its frank geniality, its sensitiveness to affection, its poetic tenderness, its deep religion;" and Guizot alludes to "his meditative mind," to "Alfred poëte," to the "delicatesse de l'âme d'Alfred," and concludes by citing from the contemporary chronicle: "The famous, the warlike, the victorious, the protector of widows and orphans, the man most learned in poetry, the king most dear to his people, affable towards all, liberal, prudent, courageous, just, temperate, patient in the midst of continual suffering, careful in revising the sentences of the judges, vigilant in the service of God-Alfred the Shepherd of England, the wisest of the English, Alfred the Truthful, Alfred the Great, Alfred the 'well-beloved.'"

Freeman declares him to be "the most perfect character in history."

No man on record had so many virtues and so little alloy. Saint without superstition, scholar without ostentation, conqueror never cruel, prince never cast down by adversity or insolent in triumph. St. Louis is nearest like him, but was not as patriotic, Washington is as virtuous, but has no claims as saint or scholar, William the Silent has not his noble simplicity, Charlemagne was not freed from personal ambition. Even Edward I. had not his "pure, simple, childlike disinterestedness."

What Aristides was for the Greeks, St. Louis for the French, Washington for the Americans, that is Alfred for the English: their saint, their demigod, their perfect model of virtue.

A D.		Age	A.D. Age
849	Born at Wantage.		878 Dispossessed of kingdom by
853	Sent to Rome; presented by		Danes; retired to Athelney . 29
	the Pope	4	880 Danes acknowledged his sove-
855	Accompanied his father to		reignty
	Rome	6	882 Again defeated Danes at sea . 33
856	Returned to England	7	885 Defeated Danes at Rochester;
	Invested with a subordinate		took part of their fleet 36
	kingdom	17	886 Rebuilt and fortified London . 37
868	Assisted Burbred of Mercia		888 Commenced Anglo-Saxon trans-
	against the Danes	19	lations 39
871	Succeeded his brother Ethel-		893-97 Campaigns against Hasting 44-48
	red: defeated Danes at		894 Defeated the Danes at Farn-
	Ashendown and Wilton	22	ham and Bemfleet 45
875	Defeated Danes at sea	26	897 Constructed navy; stopped
876	Made peace with Danes at		Danish invasions 48
	Wareham	27	901 Died 52



WILLIAM THE CONQUEROR.

а.в. 1027-1087.

THE NORMANS.

The settlement of the Northmen in Gaul and their subsequent change into Normans is the great event of the tenth century. Freeman, the historian of the Conquest, has in more than one place told us what the Normans were. "The foremost apostles alike of French chivalry and of Latin Christianity, spreading themselves over every corner of the world, and appearing in almost every character. Foremost in devotion, the most fervent votaries of their adopted creed, the most lavish in gifts, the most unwearied in pilgrimages. They were foremost in war, mercenaries, crusaders, plunderers, conquerors. But they had changed their element and their mode of warfare. The mounted knight and unerring bowman had taken the place of the elder tactics which made the fortress of shields invincible. North, south, east, the Norman lances were lifted,

and in the most opposite causes. Their conquests brought with them the most opposite results: to enslave Sicily they gave a line of beneficent rulers; to England a conquering nobility, which in a few generations became truly English.

"In the arts of peace the Norman, like his Mahometan prototype, invented nothing, but he learned, adapted, improved, and disseminated everything. He ransacked Europe for scholars, poets, theologians, and artists. At Rouen, at Palermo, and at Winchester he welcomed merit in men of every race and every language. He guided Lanfranc and Anselm from Lombardy to Bec, and from Bec to Canterbury. Art under his auspices produced alike the stern grandeur of Caen and Ely, and the brilliant gorgeousness of Palermo and Monreale. In a word, the indomitable vigour of the Scandinavian, joined to the buoyant vivacity of the Gaul, produced the conquering and ruling race of Europe."

The English and the Normans were kindred; they both belonged to the same great race, the Teutonic. Relations, mostly unfriendly, had existed between them for nearly a century before the great invasion by Duke William. English Ethelred had married Norman Emma; both had fled with their children to Normandy when Sweyn the Dane invaded England; their son Edward, the late king, half Norman by birth and wholly Norman by breeding, hated the sound of the English tongue, and went very near, English as he was, making himself a Norman Conquest of his country. For foreign favourites and hangers-on swarmed at his Court, and, to the grief and dismay of the English and their leaders, got possession of the highest offices of Church and state. In the very midst of a great agitation caused by this invasion Duke William visited Edward (1051) with a great band of Frenchmen, probably to spy out the land and his chances. But the time was not yet come.

William of Normandy was born in 1027, at Falaise, in the old castle which is still to be seen. He was a son of Duke Robert, by Arletta, a maiden of the town, and bore through life the title of "the Bastard." He was only eight years old when his father died, and his early surroundings were those of treason and turbulence on the part of his barons. At twenty, by a great victory over the rebel lords at Val-ès-Dunes, he became master of his duchy. A series of victories followed, in which he showed himself strong, fierce, and ruthlessly revengeful; a true Northman, but with an intellectual force which justified the epithet of "the Great," given by his contemporaries. It is hardly to be doubted that the lust of conquest among the Normans was at this period stimulated by the reports of the achievements of their kinsfolk under Guiscard in Italy and About 1062, or a little later, William got possession of Harold's person, and extorted from him by a trick an oath that he would support his claim to the English crown. On the death of Edward he made preparations on a vast scale for his enterprise of invasion; preparations not only military but diplomatic. In a great assembly of his lords at Lillebonne, he expounded his scheme and demanded their service. Among the embassies which he sent the most important was one to the Pope Alexander II. He sought his sanction for the conquest of England. It was the first instance of the kind. The chief power at Rome was then in the hands of Hildebrand, who eagerly seized the opportunity. A bull was issued authorizing the invasion, and a consecrated banner of the Church was presented to the Duke.

The Norman fleet, after a delay of some weeks, caused by bad weather, sailed from St. Valéry on the Somme on the 27th of September, 1066, and reached Pevensey (site of the ancient Anderida) the next day. Harold was far away fighting other foes in the north. As soon as the tidings of the Norman landing reached him, he marched rapidly southward. The great battle was fought on the hill of Senlac, not far from Hastings, on Saturday, the 14th of October. The fighting was heroic on both sides; the slaughter was prodigious. Towards evening Harold fell, and the Norman had won. The hero-king dead, his English nobles fallen with him, and the national army dispersed, no second battle was fought. An attempt was made to set up the boy Edgar the Atheling as king, but in vain. William by rapid and masterly movements compelled submission; and at Christmas he was crowned. A fortress was built, which became the "Tower of London," and the long process of the Conquest was ushered in by a deceptive policy of conciliation.

The new tyranny provoked revolts, and these were severely repressed and punished. The lands were confiscated by wholesale, and feudalism carried to its extreme development. Fortresses were built, and garrisons placed in the principal towns. In the winter of 1069-70 was carried out the terrible "harrying" of the north. The whole district beyond the Humber was laid waste, not a single village left, and the ground lay untilled for more than half a century. After sword and fire came famine and pestilence. In 1071 the great conflict was waged in the Isle of Ely, the fen-land, where many of the leaders and patriots had made themselves a "Camp of Refuge." The hero of this last struggle was the outlaw Hereward. The resistance was brave, the resistance of desperate men; but the determination of the Norman was stronger, and the last hope of the English was quenched.

Sixteen years of life and rule still remained to the Conqueror, and they were years full of action and trouble and suffering. His character did not soften with time, and his injustice in some instances was believed to be the cause, by way of divine retribution, of the failures and afflictions of his last years. Meanwhile one conspicuous result of the Conquest was "the good frith (*friede*, peace) which he made in the land," and a still greater was the consolidation of the kingdom which was begun. Changes in the Church went on side by side with the transfer of the lands, and

the royal supremacy was rigorously maintained. Many districts of the country were converted into deer-parks and forests, for William "loved the high deer as if he were their father." The formation of "the New Forest" in Hampshire was felt to be the cruellest wrong the Conqueror had done to the English. One of his most memorable acts was the great survey of the land, the record of which forms the famous "Domesday Book." This was ordered in 1085.

The end was now drawing near. The ruling passion of the man appeared to be as strong as ever. He must conquer till he die. After holding a great gemot on Salisbury Plain, in the summer of 1066, he went to Normandy. He coveted the district called the Vexin, and treated with Philip of France about it. The next year he made war on Philip, harried the Vexin and burnt the town of Mantes. Mad with wrath, he rode among the burning ruins; his horse stumbled and threw him; his hurt was incurable. Borne to his palace at Rouen, and thence for quietness to the priory outside the city, he lay helpless and suffering, but with sound mind, for some weeks. Awed by the approach of another conqueror, he professed himself penitent, proclaimed deliverance for some noble captives, and gave money largely to "pious uses." He died while the minster bells were ringing prime, on the 9th or 10th of September, 1087.

Green, "History of the English People," thus draws his picture: "The spirit of the sea-robbers from whom he sprung seemed embodied in his gigantic form, his enormous strength, his savage countenance, his desperate bravery, the fury of his wrath, the ruthlessness of his revenge." "No knight under heaven was William's peer." "No man could bend William's bow." His mace crashed through a ring of English warriors to the foot of the standard. He rose to his greatest height when other men despaired. "His voice rang out like a trumpet." At the head of his troops he broke through the snowdrifts. "When the townsmen hung raw hides over their walls in scorn of the tanner's grandson, William tore out his prisoners' eyes, hewed off their hands and feet, and flung them into the town. Of men's love or hate he recked little."

Freeman has depicted the character of William in a twofold light. As regards goodness, he was neither the best nor the worst of men; he has no share in the pure glory of Timoleon, Alfred, or Washington, or even in the mingled fame of Alexander, Charlemagne, and Canute; but on the other hand, he is not to be classed with the "scourges of a guilty world," the Nebuchadnezzars, the Swends, the Bonapartes, &c. As regards greatness, he "bears a name which must for ever stand among the foremost of mankind." "No man that ever trod this earth was endowed with greater natural gifts; to no man was it ever granted to accomplish greater things. If we look only to the scale of man's acts, without regard to their moral character, we must hail in the victor of Val-ès-

Dunes, of Varaville, and of Senlac, the restorer of Normandy, the conqueror of England, one who may fairly claim his place in the first rank of the world's greatest men. One feature stands out pre-eminently—he seems to be the embodiment in the highest degree that human nature will allow of the fixed purpose and unbending will. Whatever he decreed, he found means to bring about; whatever he found to do, he did with his might. His warlike exploits, though they set him among the foremost captains of his time, are but a small part of his fame. Many could have led the troops on to victory, but none, in his age, could have shown themselves masters of every branch of state-craft. He knew how to use the noblest and the vilest men as his instruments."

Whatever may have been the character of the man, there can be little doubt that the great act of his life was the most important event of the century and of the whole medieval period. Three conclusions may be safely drawn by the historic student. The most powerful people of the middle ages were the Normans. The Normans made three conquests,—the conquest of Sicily, the conquest of Palestine, and the conquest of England. Of the three it is the last mentioned which is the most significant and upon which the most enduring results have followed.

e		A		A
A.D.		Age	A.D.	Age
1027	Born at Falaise.	-	1069-70 Devastated the north . 42	-43
1035	Succeeded his father as Duke		1071 Conquered Hereward at Isle	
	of Normandy	8	of Ély	44
1047	Victor at Val-ès-Dunes		1072 Invaded Scotland	
1051	Visited Edward the Confessor	24	1074 Went to Normandy	47
1054	Battle of Montemer	27	1075 Returned and quelled con-	
1056	Made peace with Henry 1. of		spiracy	48
	France	29	1078 Son Robert rebelled against	
1060	Held court at Lillebonne	33	him	
1062	Extorted from Harold cession		1080-81 Marched into Wales . 53	
	of claims to English crown .	35	1085 Unsuccessful attack on Brit-	
1066	Conquered Harold at Hastings	39	tany	58
1067	Founded Battle Abbey	40	1086 "Domesday Book" compiled	59
	Suppressed insurrection in		1087 Made war on Philip of	
	the north	41	France; died at Rouen	60



CHARLES THE FIFTH.

а.р. 1500-1558.

SPANISH SUPREMACY.

The reign of Charles V. almost exactly coincides with the period of the great religious revolution which changed the relations of many of the states of Europe to the Papacy and to each other, and put a new face on the western world. At the time of his birth all Western Europe was in communion with the Roman Church. Before he died a large part of Western Europe had separated from that communion, and the various Churches were also widely separated from each other. In the long complicated series of actions and events which resulted in this change Charles V. was one of the five or six most prominent actors. The vast extent of his dominions, the wealth at his command, and the dignity of emperor made his position the most splendid in Christendom. His power was greater than that of any emperor since Charles the Great, and he was

the last great emperor. If we take Luther as the representative of the forces of the Reformation, Charles V. may well stand as representative of the forces opposed to it. On one grand occasion these two met face to face – at the Diet of Worms, in January, 1521, Luther then aged thirty-eight, and Charles twenty-one. How Luther bore himself there the world does not forget.

The life of Charles V. naturally divides itself into three distinct portions. The first, extending from his birth to his coronation at Aixla-Chapelle, is the period of growth, acquisition, and ascent; the second, from the breaking out of the war with his rival, Francis I., to his flight from Innsprück, or his abandonment of the siege of Metz a year later, is full of action, conflict, and endeavour; and the third, including the last five years of his life, with its successive resignations of dominion, its last scenes in the cloister of St. Juste, is the period of decline and disappointment. This is surely the old text, Vanitas vanitatum, once more written out on the grand historic scale.

Charles V. was born at Ghent on the 24th of February, 1500. He was the son of Philip, Archduke of Austria, and of Joanna, only child of Ferdinand and Isabella, sovereigns respectively of Aragon and Castile. Philip, as the son of Mary of Burgundy, was ruler of the Netherlands; and on his death, in 1506, Charles inherited those provinces and Franche-Comté. Ten years later (1516), on the death of his grandfather Ferdinand, he succeeded to the crowns of Aragon and Castile, with all their possessions both in the old and the new world, among these the kingdoms of Naples and Sicily. And in 1519, on the death of his other grandfather, Maximilian, he was elected emperor. He was brought up and carefully educated in the Netherlands; and only after some delay and with reluctance he quitted the country of his birth and went to Spain in 1517. On his way from Spain to Germany (1520) he landed at Dover and had an interview with Henry VIII. and Wolsey; and on the 23rd of October he was crowned emperor at Aix-la-Chapelle. It was the year in which Luther burnt the Pope's bull, and Solyman the Great became Sultan of the Ottomans: two formidable powers which Charles would have to reckon with. The next year began his wars with Francis I., who at the battle of Pavia (1525) became his prisoner, and was detained for nearly a year, and then only liberated on hard terms. which he did not keep. Charles took into his service the great Constable de Bourbon, who, in 1527, sacked Rome, the Pope, Clement VII. being kept prisoner in the castle of St. Angelo. Previous to this. troubles had sprung up in Spain, discontent possessing the nobles, the clergy, and the commons. The last were for a time supported, and ultimately abandoned by, the two former classes, and Padilla, leader of the commons, was executed. In 1530, Charles, having made peace with the Pope and with France, was crowned at Bologna King of Lombardy

and Emperor. In June of the same year he held a Diet at Augsburg, memorable as the occasion of the presentation to him of the Lutheran confession of faith, known as the Confession of Augsburg. His policy towards the Reformation was hostile, but temporizing. The new religious movement became too strong to be summarily crushed; and the Emperor had so much else on his hands. Before the year 1530 closed he was confronted with the League of Smalcald, arms and men set for a bulwark of Protestantism. But instead of war came the Compromise of Nürnberg, with concessions and hopes of conciliation. For the rapid advance of the Grand Turk and his magnificent army made it imperative on the Emperor to march against him with a force not inferior. The Sultan could not face the Emperor, and retired within his own dominions.

In 1535 Charles conducted an expedition to Tunis, against the great pirate leader Barbarossa, made a terrible slaughter of Mussulmans, and set free 20,000 Christian slaves. After his return war was renewed with France, a peace was patched up in 1538, and broken in 1542. Between these years a revolt broke out at Ghent, and Charles hastened in person to suppress it. Then followed a fruitless expedition to Algiers; more fighting with the French and the Turks allied against him; and the Peace of Crespi, at which the Emperor and the King of France pledged themselves to destroy the new faith in their respective dominions. This Peace of Crespi (1544) suddenly frustrated an invasion of France by Henry VIII. At the close of the next year met the Council of Trent, and two months later Luther died (February, 1546). The Protestants rose in arms the same year; Charles defeated them at Mühlberg and took prisoners Frederick, Elector of Saxony, and Philip, Landgrave of Hesse (April, 1547). He gave the electorate to Maurice, a kinsman of Frederick, who played him false for some years, and in 1552 put himself at the head of the Protestants and narrowly missed capturing Charles at Innsprück. While the fathers at Trent were making arrangement between Catholic and Protestant impossible, Charles was still aiming at it; and at the Diet of Augsburg in 1548 had published the "Interim," a project of a common platform, rejected by both parties. Freedom of worship was at last granted to the Protestants by the Treaty of Passau (1552), confirmed three years later by the *Peace of Religion* at Augsburg. In 1552 Henry II. of France had seized the three bishoprics of the empire, Metz, Toul, and Verdun; and Charles led an army to Metz to retake it; but after a siege of three months he failed, and withdrew. This was his last appearance in the field. Metz remained in the hands of the French till recovered by the Germans in the war of 1870, 1871.

The Emperor's task was now well nigh done. His main aim in life had been hopelessly crossed; his health was broken by care and toil; and energy and hope were gone. To him, "inheritor of Church predilections coloured with a religious melancholy," it would seem quite

natural to end his days in monastic seclusion. Something like a final flicker of hope appeared in his suggestion (1554) to his son Philip of a marriage with Mary Queen of England—once his own marriage with her had seemed possible. The marriage took place, but it was childless. Thenceforth the tale is of honours one by one stripped off, and of burdens one by one dropped. First, in 1554, he gave up the kingdom of Naples and the duchy of Milan to Philip; the next year, in a grand pathetic way, in the hall of the Estates at Brussels, he resigned to him the Netherlands; he was ill, and, leaning on the young Prince of Orange—to be by-and-by known as William the Silent—made a short and touching speech, weeping the while. His mother died six months before. In January, 1556, Spain and the Indies passed into the same hands, and in the following August the Imperial dignity was renounced and the crown sent to his brother Ferdinand.

In September, Charles, accompanied by his two sisters, Eleanor and Mary, both queens, quitted the Netherlands and returned to Spain. (Ignatius Loyola had died only a few weeks earlier.) And then, worldly ambition and aims all over, he sought repose in the sequestered monastery of St. Juste.

In the cloistered shades he still took interest in the world he had quitted; remained hostile to the Reformation, and exhorted his children to resist it. In the closing weeks of his life, when mind and body were failing together, he fell deeper and deeper in melancholy and the practice of monkish austerities. It is said that he had his own obsequies performed in his presence in the chapel.

Charles V. died at the convent of St. Juste, on the 21st of September, 1558.

A.D.	Age	A.D. Ag	ŗe
1500	Born at Ghent,	1539 Revolt in Netherlands 3	
1516	Crowned King of Spain 16	1540 Revolt suppressed; visited	
1518	Crowned King of Castile 18	Francis I. at Paris 4	0
1520	Crowned emperor at Aix la-	1541 Unsuccessful expedition	
	Chapelle 20	against Algiers 4	1
1521	Diet at Worms 21		2
1525	Francis I. made prisoner at	1544 Battle of Cérisoles 4	4
	battle of Pavia 25	1545 Peace of Crespy 4	5
1526	Francis I. released 26	1547 Began hostilities against Pro-	
1527	Rome stormed 27	testants 4	7
1529	Diet of Spire; treaty with	1553 Abandoned siege of Metz 5	3
	Clement III 29	1556-57 Resignation of crown;	
1530	Diet of Augsburg 30	retired to monastery 56-5	7
1535	Took Tunis	1558 Died at St. Juste 5	3



WILLIAM THE SILENT.

AD. 1533-1584.

THE DUTCH REPUBLIC.

The Low Countries, with their hard-won fertile fields, their great cities and seaports, and their industrious, peace loving population, formed one of the most important parts of the dominions of the king of Spain. The king and his Dutch subjects were ranging themselves on opposite sides in the great controversy, and a struggle was preparing which was to astonish the world. Under the name "Revolt of the Netherlands" the process is recorded in history, and its result was the foundation of "The Dutch Republic." In this war, one of the most famous of all time, the hero of the Dutch people was William the Silent.

William of Nassau, Prince of Orange, founder of the Dutch Republic, was born at Dillenburg in 1533. At the age of eleven he succeeded to the small principality of Orange, and he had also large estates in the

Netherlands. His father trained him in the Reformed faith, but at fifteen he was sent to the Court of Charles V. at Brussels, and he renounced Lutheranism. The Emperor thought highly of him, and trusted him early in great matters of state. At the grand eeremony of his abdication in favour of his son Philip II., Charles appeared in the hall leaning on William of Orange. William was entrusted with the command of the army on the French frontier, and he conducted the secret negotiations for the Treaty of Cateau-Cambresis (1559). He was one of the hostages, the Duke of Alva was another, detained by Henry II. for the due execution of the treaty. The French king, supposing that the prince was in the confidence of Philip, spoke of the plot formed between himself and Philip for the destruction of the Protestants. The prince heard with horror, but kept his countenance and said nothing. Hence the epithet of "the Silent." The news was communicated to the leaders of the Reformed party, and although an open breach was deferred, resistance to the Spanish designs was strengthening. In 1564, chiefly through the influence of William, the great minister Granvella was removed. Ediets against the Protestants were multiplied, but the prince, although still a Catholic, refused to execute them in his own provinces, In 1567 he suppressed an insurrection at Antwerp, and the same year, on the approach of Alva to assume the Government, he resigned his offices and retired to his Nassau estates. When summoned before the dread "Blood Council," he did not attend, was consequently proscribed, his estates confiscated, and his son taken as a hostage to Spain.

Various military operations followed during 1568-69, and by gradual approaches the prince joined the Protestant party. In April, 1572, Dutch privateers, commissioned by him, took Briel, and the insurrection of the provinces broke out. In the midst of the consequent operations fell the awful "Day of St. Bartholomew," and help from France failed. patriot army was disbanded, and the tide ran in favour of the Spaniards. The memorable sieges of Haarlem and Leyden followed. To relieve Leyden, William had the dykes cut, and flooded the enemy out. His authority was now generally recognized, and the feeling towards him expressed itself in the endearing appellation "Father William." Conferences were held which led to nothing; attempts to win over the prince were made by Don John, Alva's successor, but he could not be trusted. A league against the Spaniards was formed at Ghent in 1576, and there was a futile intervention of Queen Elizabeth. But the crowning achievement of William the Silent was the league of seven provinces for mutual defence, named in history "Union of Utrecht," and considered the foundation of the Dutch Republic. It was formally constituted in January, 1579, and on the 26th of July, 1581, the independence of the United Provinces was proclaimed at the Hague. This success was unpardonable. Philip II., who had vowed never to grant any of the changes demanded,

or to limit the powers of the Inquisition, and had expressed his fanaticism in the maxim, "Better not reign at all than reign over heretics," and had declared that "he would sacrifice a hundred thousand lives if he had them rather than submit to a single change in matters of religion," now set his seal to these fiendish resolves by confirming by proclamation the decree of the Inquisition which, in February, 1568, sentenced all the inhabitants of the Netherlands to death as heretics! After the Union of Utrecht Philip set a price on the head of the Prince of Orange -25,000 crowns and a patent of nobility for his assassination. The ban was published in March, 1580. Several attempts were consequently made, and at last, on the 10th of July, 1584, one Balthasar Gerard succeeded in getting into the prince's house, and shot him dead. The assassin was tortured and beheaded a few days later; but his family were ennobled by Philip, and the estates of the murdered prince were given to them. William was tall and handsome, of dark complexion, with symmetrical features, high forehead, and rich brown eyes. Although he was named "the Silent," and justified the title by his capacity of habitual dissimulation and holding his tongue, there was nothing morose about him. He was naturally of a gay and lively disposition. He was four times married, and left three sons and many daughters. His fourth wife was Louise, daughter of the famous Huguenot leader, Coligny. From their son, Frederic Henry, descended William III. of England, who was great-grandson and last male descendant of the founder of the Dutch Republic.

A monument to the Silent Prince, in the form of a tower, was erected at Dillenburg, his birthplace, in 1875.

MOTLEY'S ESTIMATE OF WILLIAM THE SILENT .- "We are not to regard William of Orange on the threshold of his career by the light diffused from a somewhat later period. In no historical character is the law of constant development and progress better illustrated. At twenty-six his foot was hardly on the first step of that difficult ascent which was to rise before him all his lifetime. He was rich, powerful, of sovereign rank, and contained within him the germs of moral and intellectual greatness. He was nominally a Catholic, but troubled himself little with doctrines. His determination to protect a multitude of his subjects from horrible deaths proceeded not from sympathy with their religious sentiments, but from a generous detestation of murder. He directed his thoughts towards other things than religion. Banquets, masquerades, tournaments, the chase, interspersed with the routine of official duties, civil and military, filled up his time. His hospitality, like his fortune, was almost regal. his hospitable palace at Brussels the feasting continued night and day: the breakfast tables were spread from early morn till noon, and the dinner and supper tables were daily banquets for multitudes of guests, among whom the highest nobles and men of lower degree found themselves welcomed with a charming and affable grace. William was gentle and

agreeable in his speech, and could turn the gentlemen of the Court as he wished, and had manners at once familiar and dignified."

Such in the year 1560 was William of Orange, a generous, stately, magnificent, powerful grandee.

"His firmness was allied to his piety. His constancy in bearing the whole weight of as unequal a struggle as men have ever undertaken was the theme of admiration even to his enemies. The rock in the ocean was the favourite emblem by which his friends expressed their sense of his firmness. From the time when, as a hostage in France, he first discovered the plan of Philip to plant the Inquisition in the Netherlands, up to the last moment of his life, he never faltered in his determination to resist that iniquitous scheme. This resistance was the labour of his life. To exclude the Inquisition, to maintain the ancient liberties of his country, was the task which he appointed to himself when a youth of three and twenty. Never deluding himself or others with the usual phraseology of enthusiasts, he accomplished the task, with such sacrifices as few men have ever been able to make, for the disinterested benevolence of the man was as prominent as his fortitude. In his country's cause he became nearly a beggar as well as an outlaw. He poured out his revenues like water, refused a hearing to the tempting offers of the royal government, and only accepted in the last days of his life, when refusal had become impossible, the sovereignty over the provinces. He died as he had lived, for his country: 'God pity this poor people,' were his last words,

"His intellectual faculties were of the highest order. He had the exact, practical, and combining qualities which make the great commander. Of the soldier's great virtues—constancy in disaster, devotion to duty, hopefulness in defeat, no man ever possessed a larger share. He was a conqueror in the loftiest sense, for he conquered liberty and a national existence for a whole people. He was the first statesman of the age; he possessed a ready cloquence which could convince or persuade. He wrote and spoke well French, German, Flemish, Spanish, Italian, Greek."

A.D.	I I	Age	A.D.		Age
1533	Born at Dillenberg.		1569	Joined the Huguenots under	
1544	Succeeded Réne as Prince of			Coligny	36
	Orange	11	1572	Opposed the Spaniards	
1551	Married Anne of Egmont	18	1574	Saved Leyden by cutting the	
1555	Was sent to Court of Charles V.	22		dykes	
1559	Employed by Philip II. to		1575	Married a third wife	
	negotiate with Henry II	26	1576	"Pacification of Ghent"	43
1561	Married a second wife	28	1577	Entered Brussels; called	
1563	Remonstrated against Tran-			"Father William"	44
	vella's proceedings	30	1578	Projected Union of Utrecht .	45
1567	Suppressed Calvinist insur-		1580	Reward offered for his head	
	rection; retired to Nassau.	34		by Philip II	47
1568	Organized an army; unsuc-		1584	Assassinated at Delft	
	cessful in Brabant	35			



RICHELIEU.

A.D. 1585-1642.

THE FRENCH MONARCHY.

Armand Jean du Plessis, Cardinal, Duc de Richelieu, the renowned Minister of France under Louis XIII., was born in Paris, being a son of François du Plessis, lord of Richelieu in Touraine and Grand Provost of France. He was educated at the Collége de Navarre for the profession of arms, but his career was unexpectedly altered by the determination of his brother Alphonse, Bishop of Luçon, to resign the dignities of the Church in order to serve God in the solitude of the cloister. It was now represented to the young Armand that an episcopal see, which had also been occupied by his great-uncle, ought to remain in the family. He willingly responded to a vocation which in the eyes of his parents was obvious, and applied himself to theological studies with such extraordinary ardour that at twenty years of age he was admitted to the degree of

Doctor, after having sustained his theses, in rochet and purple cape, like a bishop designate. Fearing lest his youth might cause delay in the issuing of the Bulls, he hastened to Rome and delivered before the Holy Father a Latin harangue which removed all objections on the score of age. He was consecrated in his twenty-second year by the Cardinal de Givry in the presence of Pope Paul V. On his return to France he occupied himself with the conversion of heretics, the instruction of the clergy, and the reform of abuses. His preaching edified his diocese and Indeed, he appears to have devoted himself exclusively to his ecclesiastical functions up to the time of the meeting of the States-General in 1614, when he sat as deputy of the clergy of Poitou. eloquence was recognized, and he was chosen to harangue the King on the subject of the grievances of the clergy. In his speech he adroitly referred to the insignificance of the young King, Louis XIII., while he praised the conduct of his mother, Maria de' Medici, who, gratified by the flattery, prepared the young prelate's way to fame and fortune. that time Richelieu habitually resided at the Court.

In 1616 he entered the Council of State as Secretary for War and Foreign Affairs, notwithstanding the decided antipathy of the King. After the assassination of Marshal d'Ancre, the favourites of the King gained the ascendency, but Richelieu's far-seeing ambition induced him to follow the Queen-Mother into exile at Blois. Becoming suspected, however, he soon retired to a priory near Mirebeau, where he composed a "Defence of the Principal Points of the Catholic Faith," which he dedicated to the King. In spite of his reserved conduct he was considered dangerous in his diocese, and accordingly he was relegated to Avignon, where he remained a year, disarming his enemies, and writing "De la Perfection du Chrétien," a book which passed through more than thirty editions, and was translated into several languages, even into Arabic.

In 1619 the King recalled Richelieu, and sent him to Angoulême, where he persuaded the Queen-Mother to a reconciliation, which was concluded in 1620. In consequence of this treaty the Duke de Luynes obtained for him a Cardinal's hat from Pope Gregory XV. Richelieu, continuing his services after the Duke's decease, was readmitted into the Council through the interest of the Queen, and almost against the will of the King. Soon afterwards he rose to the premiership, and entered upon a policy which has secured for him a place among the greatest statesmen in modern history. That policy may be summed up in three principal designs combined for the consolidation of the monarchy and the greatness of France:—First, the consummation of the work of Louis XI. by the extinction of the last remains of feudalism and the full subjection of the high nobility to the royal power; secondly, the subjugation of Protestantism in France, where it had assumed a character as much political as

religious, threatening to create a State within the State; thirdly, the abasement of the House of Austria, by crushing its ambition for universal domination, and, consequently, the elevation of the power of France abroad on the ruins of her formidable rival.

The Cardinal in reality reigned over France for a period of eighteen years (1624-42). His life was a continued struggle, in which he displayed as much courage as genius. Louis XIII., weak and distrustful, doubtless admired the grandeur of the ideas of Richelieu, and, discontented and trembling, allowed himself to be subjugated by the force of the Cardinal's will, sacrificing, in the interest of the State, relatives, friends, courtiers, his personal prejudices, and even his antipathies. This is true; but up to the very last the Cardinal could never be certain of his victory over this sickly and rebellious spirit, and the King, a few months before his death, was still conspiring with the young Marquis de Cinq-Mars against his Minister. "The four feet square of the King's cabinet," said Richelieu, with reason, "give me more trouble and disquietude than all the cabinets of Europe."

In his hands the Government soon assumed a tone of vigour and decision. He concluded a treaty of marriage between the Prince of Wales (afterwards Charles I.) and Henrietta, the French King's sister, in spite of the efforts of Rome and Spain, and equally disconcerted those Courts by sending an army and preventing the projected union with the Milanese. He next turned his arms against the French Calvinists, who were become a kind of independent republic within the kingdom. Having first secured the friendship of Holland by pecuniary aid, he obtained the alliance of the Dutch and the English against their brother Protestants of Rochelle, and expelled them from the Isle of Rhé. One of the principal enemies he had to contend with was Gaston, Duke of Orleans, the King's brother. In consequence of a conspiracy entered into by this Prince to assassinate the Minister and effect great changes at Court, Richelieu arrested several of his confidants, and brought some of them to the scaffold. war broke out with England, chiefly in consequence of the insolent vanity of the Duke of Buckingham; and the Calvinists of Rochelle were induced to favour the English. Richelieu thereupon determined to reduce to submission a town which had long been the seat of an independent power, often leagued with the enemies of the kingdom; and after the Duke of Buckingham had been obliged, with disgrace, to quit the Isle of Rhé, Rochelle was invested on all sides. Richelieu in person took the command of the siege, and in order to prevent the arrival of succours by sea, he caused to be constructed a vast mole in the ocean, by which all communication from abroad was cut off. After a resistance of eleven months Rochelle submitted to famine, and the Protestants, having lost their great bulwark and all their other strong places, were rendered incapable of again acting as an armed party. It is to the credit of the

policy and the moderation of Richelieu that they were still allowed the free exercise of their religion.

His foreign politics had chiefly in view the humiliation of the House of Austria, and by his treaty (1631) with Gustavus Adolphus of Sweden, he enabled that great King to pursue those plans which brought the Empire to the brink of ruin.

Gaston, Duke of Orleans, in his retreat, with the Duke of Lorraine, whose sister he had married for his second wife, plotted to excite a civil war for the expulsion of Richelieu and his own return in consequence. Gaston entered France, accompanied by the Duke de Montmorency, and was defeated at Castelnaudary. Montmorency was taken prisoner, and expiated his crime on the scaffold. The Queen-Mother herself was put under arrest, her servants were all sent to the Bastille, and she finally ended her days in exile at Cologne. The King supported his Minister in all these severities.

Assuredly Richelieu was a great Minister. He did much for France, but nevertheless his government was not popular, for he was neither loved, like Henri IV., nor respected, like Louis XIV. All trembled before him; and at his death the people, as if delivered from oppression, celebrated the happy event by bonfires and other manifestations of joy.

Richelieu was a patron of letters. He built the Sorbonne, founded the Royal Printing House, the Jardin des Plantes, and the French Academy. The authenticity of his "Political Testament," which was attacked by Voltaire, has been victoriously defended by Foncemagne.

A.D.	A	ge	A.D. Ag	re
1585	Born at Paris.		1630 Commanded in Italy; triumph	
1607	Made Bishop of Lucon	22	over enemies 4	5
1614	Almoner to Marie Medici;		1635 Founded "Académie de	
	Deputy to States-General .	29	France"5	0
1616	Secretary of State	31	1638 Lost his agent, Father Joseph 5	53
1617	Exiled to Blois	32	1642 Died 5	7
1618	Exiled to Avignon	33	1649 " Memoirs."	
1622	Created cardinal	37	1789 Remains exhumed and mostly	
1624	Member of Council	39	lost.	
1628	Took Rochelle	43	1866 Relic recovered and pre-	
1629	First Minister of State	44	served at Sorbonne.	



CROMWELL.

A.D. 1599-1658.

THE ENGLISH REVOLUTION.

"The success by which the English Revolution was crowned," writes Guizot, "has not only been permanent, but has borne a double fruit; its authors founded constitutional monarchy in England, and their descendants founded the republic of the United States. At the close of last century France entered on the path thus opened up. Europe now rushes headlong in the same direction. The Revolution that took place in Germany in the sixteenth century was religious, not political; that in France in the eighteenth was political, not religious. It was the peculiar felicity of England in the seventeenth century that the spirit of religious faith and the spirit of political liberty reigned together, and she entered upon the two revolutions at the same time."

The master spirit of this double revolution came of a good family in

Huntingdon, in the eastern counties. As a child he was sent to school, then passed a short time at Cambridge, and studied law in London. As a youth, it is said, he was turbulent; but at twenty-one occurred his marriage and conversion, when he settled at Ely, and became occupied with the cares of a family and the duties of a farmer's life. He joined the Puritans, became extremely devout. His conversion made him hypochondriac and melancholy. Stories are told of the long prayers in the morning delaying his men from their work, of the midnight summons of the family physician without sufficient reason.

In 1628 he represented his borough in Parliament, and the meagre accounts of his public life at this time show him inveighing with acrimony against popery and prelacy, and defending the poor and wronged against the rich and powerful. But his political history did not really begin until the meeting of the Long Parliament in 1640, when, ranged on the side of his celebrated relative Hampden, he warmly supported all the measures that tended to disarm royalty and invest Parliament with the supreme power. No one foresaw the great future in store for him. He appeared only an ordinary country gentleman, skilled neither in intrigue nor speech, showing himself excessively zealous in his opinions, and often carried to extremes by them. He had a burly figure and ruddy face; his coat was rough and his linen not scrupulously clean; his voice was sharp and irritating, manner vehement, and he had sometimes to be called to order.

The utmost that was aimed at by the Parliament at that time was to draw to themselves more of governmental power, dreaming possibly of the triumph of Presbyterianism over the Established Church. Cromwell, vehement and zealous Puritin as he was, had higher hopes, and though no doubt wishing liberty of conscience for all, he desired the preponderance of his own special opinions. At the beginning of the strife between Charles I. and the Parliament Cromwell obtained a commission as captain of cavalry, and set about raising troops in his own county. He remarked the inferiority of the parliamentary soldiers, who were for the most part mercenaries, serving-men to the gentlemen of the royal army, and then he discovered to what force he must appeal. The chivalrous spirit was wanting, he must appeal to the religious; to fight against men of honour he must have men of religion. On this plan he began to recruit his squadrons from the ranks of the farmers, men hardy and used to labour and fatigue, who went into the war with the ardour of religious conviction. "He sought good fighting men among the godly farmers of the associated counties," and the successes which his Ironsides gained over the Royalists at Marston Moor and Naseby caused him to be named lieutenant-general of all the forces.

The Parliament soon became uneasy at this position of affairs, and tried to curtail his power, and make terms with the half-conquered king.

Cromwell, secure in the favour of the army, proposed and caused to be adopted the famous Self-denying Ordinance which interdicted all members of Parliament from military charge. Yet the army could not do without Cromwell, and by a special dispensation he was allowed to keep his own. By the Self-denying Ordinance the army was rid of its grandees, remodelled, and the war pushed forward with fresh vigour.

Charles I., after the battle of Naseby, had been taken and kept a prisoner at Holmby, but continued to negotiate with both Parliament and army, hoping to destroy one by the other. The interception of a private letter, in which the king acknowledged himself as deceiving the Puritans, whom he intended to hang when he came into power, renewed hostilities, and at Pembroke, Preston, Warrington, and Wigan, victories were won by the Puritans and terminated the second civil war, Scotland submitting.

The great year 1648 showed England split into many parts: "a King not to be bargained with, a great Royalist party, a great Presbyterian party, at the head of which is London, and lastly, a headstrong, mutinous Republican and Levelling party." The army, menaced with dissolution by Parliament, raised themselves against it, and expelled over a hundred of its hostile members. "They are malignants," said Cromwell, "and the House must be purged of them. Thou wilt go with a troop of horse and a regiment of foot, and thou wilt take those men away; they may sit no longer." Colonel Pride, with his soldiers, surrounded the House, and when it adjourned seized the obnoxious members one by one as they passed out, and marched them off. The remainder passed the bill for the king's trial.

Then came the order for execution: "Whereas, Charles Stuart, King of England, is convicted of high treason and sentenced to have his head severed from his body, these are to will and require you to see the said sentence executed in the open street before Whitehall.—Signed, John Bradshaw, Thomas Grey, Oliver Cromwell, and fifty-six others." A deed reckoned by Carlyle as the most daring action any body of men with clear consciences ever set themselves to do. The king was executed. Parliament proclaimed that "the people of England are hereby constituted, made, established, and confirmed to be a Commonwealth, a free state, and shall henceforth be governed as a Commonwealth, or free state, by the supreme authority of this nation, the representatives of the people in Parliament, and that without any king or House of Lords." "Forasmuch as all power is originally and in reality vested in the collective people of this nation, the free choice of their representatives, and their consent is the sole basis of a lawful government, while the end of government is the common weal." Elections were to be held every two years; the representatives were to legislate, administer, execute, yet only as the servants of the people. There was to be equality before the law;

no one to serve in the army against his will; government to have no decision in matters of religion, &c., &c.

Cromwell was chosen one of the four members of the executive council; but he had to set out immediately to quell the rebellion in Ireland. On his return he was received with enthusiasm. Parliament decreed him new honours, and gave him the palaces of Whitehall and St. James's for residences. In accepting all this the Puritan soldier was not dazzled, but continued the same simple hero. In 1650 he was called to Scotland, where Charles II. had been proclaimed king; gained the battle of Dunbar, and, marching south, that of Worcester, settled the disturbances by imposing on all sects mutual tolerance and liberty of conscience, and returned to London. Thus he "tamed savage Ireland, and subdued the haughty Scottish clans. Oliver was Scotland's friend. as he was Ireland's." His correspondence on this point is significant. The Scotch say: "The Lord-General shall not limit the preachers that they must not speak against the enormities of civil power;" they object to promiscuous preaching by soldiers and laity. Cromwell retorts, "We look to ministers as helpers, and not lords over God's people." "Are ve troubled that Christ is preached?" he asks. "Truly I think he that prays and preaches best will fight best."

In April, 1653, came the dissolution of Parliament. That House being highly offended at the presumption of the army, the Lord-General was compelled to do a thing which, as he said, "made the very hairs of his head to stand on end" Hastening to the House with three hundred soldiers, and the marks of violent indignation on his countenance, he entered; stamping with his foot, which was the signal for the soldiers to enter, the place was immediately filled with armed men. Addressing himself to the members: "For shame," said he; "get you gone; give place to honester men; to those who will faithfully discharge their trust. You are no longer a Parliament; I tell you you are no longer a Parliament; the Lord has done with you." Sir Harry Vane exclaiming against this conduct, "Sir Harry," cried Cromwell, in a loud voice; "Oh, Sir Harry Vane; the Lord deliver me from Sir Harry Vane." He then in a violent manner reproached certain of the members by name with their vices. 'It is you," continued he, "that have forced me to do this. I have sought the Lord night and day that He would rather slay me than put me upon this work." Then, pointing to the mace, "Take away that bauble!" cried he. After which, turning out all the members and clearing the hall, he ordered the doors to be locked, and, putting the key in his pocket, returned to Whitehall.

He now convened a Parliament, which consisted wholly of godly men—his enemies say "the very dregs of the fanatics," Praise God Barbone, and the rest. This Parliament met on the 4th of July, 1653, and Cromwell gave them a long and earnest discourse, with urgent references

to Scripture. "Oh! if God could fill your hearts with such a spirit as Moses had, as Paul had... Moses could wish to die for his people; wish himself blotted out of God's Look. Paul could wish himself accursed for his countrymen after the flesh," &c.

This "Little Parliament" did not succeed. Finding twenty-three thousand causes of from five to thirty years' continuance lying undecided in the Court of Chancery, they tried to abolish Chancery, and proposed to draw up a new code of law, brief and intelligible, like that of New England. All the lawyers in the land rose up against them, and they resigned. Cromwell now became Lord Protector, and governed for eight months, assisted by a council of officers; then a new Parliament was convened by election. Four months later it was dissolved, and then for a year and a half Cromwell carried again upon his own shoulders the weight of the government. He partitioned out the country into military provinces, each under the control of a major-general, who preserved order and taxed the Royalists.

Another Parliament was called. The title of King was offered and refused. In 1657 he was officially installed Protector, and one year later he fell ill and died.

"The vigour of Cromwell's government in a great measure legitimized his usurpation." In the interior he established liberty of conscience, reorganized the administration, finances, and education, protected civil liberty, and prevented the exclusive domination of any party. His foreign policy was not without glory, and turned to the advantage of England. He terminated advantageously the war against Holland, raised the English navy to a high position, made alliance with Mazarin against Spain, and gained Dunkerque. It was under Cromwell that Admiral Blake vanquished Van Tromp and De Ruyter and floated English vessels in waters never before penetrated. He told the Dutch envoys that God had decided against them; that nothing remained for them but to join the mighty English Commonwealth, and in conjunction with it spread abroad the kingdom of God, and set other nations free from their tyrants.

Of the character of Cromwell it has been the fashion to say that he has merited both the reproaches and the eulogies that have been heaped upon him; that he was a strange genius, a complex character where despotism found itself strangely mingled with love of liberty, ambition with simplicity, and tolerance with fanaticism, &c. After reading Carlyle's "Letters and Speeches," it is impossible not to agree with M. Taine, when he says: "Cromwell (with the Puritans) comes out of the trial reformed and renewed. We had seen clearly that he was not simply an ambitious man, a vulgar hypocrite; but we thought of him as a wrangler and a fanatic. We considered the Puritans as sad fools, with narrow and scrupulous brains. Let us leave these worldly ideas and try

to enter into their souls. We shall find there a grand sentiment. 'Am I a just man? And if God, who is perfect justice, should judge me at this moment, what judgment would He pass upon me?' Here is the original idea which made the Puritans, and by them the English Revolution. We mock at a revolution made on account of surplice and chasuble; but there was a sentiment of the divine under these disputes about vestments. To these poor men, farmers and shopkeepers, earnest believers in a sublime and terrible God, this was a greater thing than the manner of adoring Him."

Cromwell's secret is that of Moses and Mahomet, and one which can only be defined as a nearness to God. This appears in every word that he speaks, and in his letters upon every page. Writing from Naseby, he says: "When I saw the enemy draw up and march in gallant order towards us, and we a company of poor ignorant men, seeking our order of battle—I could not but smile out to God in praises, in assurance of victory, because God would of things that are not bring to nought things that were." His battle-cry was "The Lord of Hosts." And again he writes: "This is the Lord's doing, and it is marvellous in our eyes." And again: "Let us look to Providences a little, surely they mean somewhat, they hang so together. Malice, swollen malice against God's people, now called 'saints,' to root out their name; and yet they, the poor saints, getting arms, and therein blessed with defence and more." "Who acts if he resolve not through God to be willing to part with all?"

Earnestness has its degrees; but the degree of Cromwell's was supreme. He was too earnest even to be ambitious. "He goes furthest who knows not whither he is going," was his apophthegm, a saying for which Cardinal Retz declared him a fool. Sanford says: "It is the preference for mixed and limited government to absolutism under any name that constitutes the character of Cromwell as a civil ruler." "A readiness for the duty of the hour, and no restlessness beyond it, appears to be the lesson of Cromwell's life," says Forster.

Lastly, it must be added that, like all Puritans, he was a friend to learning; that he supported the two universities "which have not given so good an account of themselves in all categories, human and divine, before or since;" at Durham he founded a college for literature and all the sciences; his son he directed to the study of history, mathematics, and cosmography. He formed a library, drew to him men of learning, patronized painting, loved music, favoured the Davenant entertainments, was tolerant in religion, regarding Catholics without ill-will, yet earnestly devised the alliance of all the Protestant states.

Cromwell and the Puritans are the true heroes of England; they manifest the original and most noble characters of the English; the practical piety, the government of the conscience, the strong will and indomitable courage. They have re-established England.

CHRONOLOGY.

A.D.		Age	A.D. Age
1599	Born at Huntingdon.		1619 King executed; quelled in-
1616	Entered Cambridge	17	surrection in Ireland 50
1620	Married	21	1650 Captain - general; defeated
1628	M.P. for Huntingdon	29	Scotch at Dunbar 51
1630	Justice of the Peace	31	1651 Defeated Charles II. at Wor-
1610	M.P. for Cambridge, and in		cester
	Long Parliament	41	1652 Dutch war began 53
1642	Captain of horse	43	1653 Became Lord Protector; dis-
1643	Defeated the Royalists at		solved the "Rump;" called
	Gainsborough	41	"the Little" Parliament . 54
1644	At Marston Moor and New-		1655 Successful war with Spain . 56
	bury	45	1656 Second Parliament; inter-
1645	With Fairfax defeated King at		fered on behalf of Vau-
	Naseby	46	dois 57
1647	Became head of the Indepen-		1657 Installed in Protectorship . 58
	dents	48	1658 Died at Whitehall 59
1618	At Pembroke, Preston, and		
	Wigan; entered Scotland .	49	(



PETER THE GREAT.

A.D. 1672-1725.

THE RUSSIAN MONARCHY.

Was son of the Czar Alexis Michaelowitz by a second wife. Alexis dying in 1676, Feodor, his eldest son by his first wife, succeeded to the throne, and died in 1682 without issue. Upon his decease, Peter, though but ten years of age, was proclaimed Czar, to the exclusion of Ivan, his elder brother, who was an imbecile youth. The Strelitzes, who were the body-guard of the Czars, made an insurrection in favour of Ivan, at the instigation of the Princess Sophia, who, being his own sister, hoped to enjoy a larger share of authority under him than if the Imperial power were entrusted solely to her half-brother Peter. After much blood had been shed the matter was compromised, and it was agreed that the two brothers should jointly share the Imperial dignity, with Sophia as regent.

Peter showed that he possessed brilliant talents, but up to this-time scarcely any pains had been taken with his education. This deficiency he supplied by an extreme curiosity and an ardent desire to learn, and after having received for some time lessons in the military art and in mathematics from a lieutenant of Strasburg, he had the good fortune to form the acquaintance of Lefort, a native of Geneva, who initiated him into the secrets of the sciences and of civilization, and who, by showing him how far Muscovy was in these respects behind all the countries of Europe, stimulated his zeal and his boundless ambition.

Lefort took fifty of the noble youths who surrounded the Czar, and joined in their amusements and pleasures in order that he might form them into a regular military company, through all the ranks of which Peter successively passed. The Strelitzes looked upon all this as the mere amusement of a young prince; but the Czar, who saw they were too formidable, and entirely in the interest of the Princess Sophia, had secretly a design of crushing them, which he wisely thought could not be better effected than by securing to himself a body of troops more strictly disciplined and on whose fidelity he could more fully rely. In 1689 he married Eudoxia Federovna, of the family of Lapuhkin. A religious ceremony, at which Sophia wished to appear with her two brothers, adorned like them with the attributes of autocracy, hastened the rupture between her and Peter, who, having reached the age of seventeen, thought it was time for the functions of the regent to cease. She reckoned on the support of the Strelitzes, and armed herself with the authority of the elder brother in order to defend her power. A fresh struggle ensued, in the course of which Peter, warned that his life was in danger, took refuge in the monastery of Troitza, whither he was followed by the Czarina, his mother. The foreigners in the service of Russia, with General Gordon, a Scotchman, at their head, espoused his cause. With a firmness beyond his years he resisted the attempts made by Sophia to extort concessions from him. She was compelled to submit, and was forced to take the veil in a convent which she had founded. On the 11th of October, 1689, Peter made his entry into Moscow. Ivan appeared before his brother to compliment him, and the latter, being moderate as well as firm, allowed Ivan to retain the external signs of sovereignty, and even the precedence in rank, but he took good care to reserve to himself the exercise of power. It is from this period that the memorable reign of Peter really dates.

That reign, which began or renewed everything in Russia, is unique in history. Never before did a more energetic will struggle with greater courage against every imaginable obstacle. To overcome them and to be equal to the task of creating or transforming everything, there was required an almost superhuman force, and perhaps also that unruly, sometimes savage, passion, which is a blemish in this imposing life, and which

prevents our concurrence in the opinion of a Russian historian who terms Peter the Great "one of the most illustrious ornaments of the human race." This is not the place to enter into all the details of a reign so replete with events that thirty-six years seem hardly capable of comprising them. It will be sufficient to sketch the main features of the reign, which may be conveniently divided into four periods. The first, from 1689 to 1700, is that of the personal development of Peter, who, while organizing the army, was nevertheless opposed to the idea of reforms, and was solely occupied in increasing his stock of knowledge by study, experience, and the example of others. In the second period. from 1700 to 1709, the struggle arose, externally as well as internally, with the preponderance of foreign States, and with the ignorance and prejudices of his own subjects. In the third, from 1709 to 1721, Peter. confident in himself and triumphant, raised Russia, until then barbarous. unknown, and plunged in an Asiatic apathy, to the rank of a great European Power. Lastly, the fourth period, from 1721 to 1725, shows us the Czar rejoicing in the work he had accomplished, reposing after his vast exertions, but affording also the spectacle of a decline hastened by immoderate indulgence in drink—of a volcano casting forth its last flames which finally consume itself.

The first care of Peter was to organize a permanent army according to European tactics, and he soon found himself surrounded by 20,000 well-drilled troops, whose numbers were afterwards augmented to 100,000. At the same time he turned his attention to the creation of a fleet. He laid the foundation of a navy, which eventually consisted of twenty ships of the line, by employing Dutch and Venetian shipwrights to build several small vessels on lake Peipus. He learned seamanship by cruising on board Dutch and English ships at Archangel, the only seaport Russia then possessed; and he sent young Russians to Italy and Holland for the same purpose. In 1696 he besieged and took the city of Azov from the Turks, and about the same time repudiated his wife on account of her opposing his plans.

In 1698 he sent an embassy to Holland and went himself incognito in the retinue. He entered himself in the India Admiralty Office at Amsterdam, and worked in the yard as a ship-carpenter, under the name of Master Peter. Then he came to England, where he made himself a complete master in the art of shipbuilding, by studying its principles mathematically, which he had no opportunity of learning in Holland. From England he proceeded to Vienna, but intelligence that Sophia had raised the Strelitzes to rebellion hastened his return to Moscow. Improved by the view of foreign countries, Peter now displayed to the world the enlightened views of his capacious mind. He liberally invited the most learned among distant nations to seek an honourable residence in Russia, and to instruct his uncivilized subjects in the various arts of life. In

1700 he declared war against Charles XII. of Sweden, and, though defeated, he persevered with undaunted courage, observing: "Though I know I must be overcome for a great while, my armies will at last be taught to conquer. In the midst of his distress in Poland he formed the project of erecting a new metropolis, and after he had added to his dominions the best parts of Livonia and Ingria, he in 1703 laid the foundations of St. Petersburg. At last the battle of Pultowa, in 1709, crowned his earnest wishes, and he saw the long-victorious Swedes conquered, and their heroic leader Charles obliged to fly. In consequence of this victory Peter secured the possession of Livonia and Ingria, to which he added part of Pomerania and Finland; but the intrigues of Charles XII. at the Turkish Court at last prevailed upon the Ottomans to break the truce, and in 1712 Peter was suddenly surrounded on the banks of the Pruth, and his army apparently doomed to destruction. While, however, he believed everything lost, his mistress, Catherine, afterwards his wife, by offering a large bribe to the Grand Vizier, saved the Czar's honour and his army. After the conclusion of peace, Peter, accompanied by Catherine, made a second tour of Europe. By his first marriage he had a son, Alexis, who, engaging in 1717 in a conspiracy against his father, was condemned to death, and died in prison under very suspicious circumstances. At last, afflicted with a dangerous illness, Peter appointed the Empress Catherine his successor, and caused her to be publicly crowned shortly before his death, which occurred on the 8th of February, 1725.

CHRONOLOGY.

A.D. Age	A.D. Age
1672 Date of birth.	1703 Founded St. Petersburg 31
1682 With brother became Czar cf	1704 Totally defeated Charles XII.
Muscovy 10	at Pultowa 32
1689 Became sole sovereign 17	1711 Married Catherine; unsuc-
1692 Founded Russian navy 20	cessful war with Turkey . 39
1696 Besieged and took Azof 24	1715 Acquired Esthonia, Livonia,
1697-98 Visited Holland and Eng-	and Finland 43
land 25-26	1716-17 Visited Germany, Holland,
1698 Defeated conspiracy of "Stre-	and France 44-45
litzes" 26	1721 Assumed title of Emperor . 49
1699 Reformed the calendar 27	1725 Founded Academy of Sciences 53
1700 Defeated by Charles XII. of	1725 Died 53
- Sweden 28	



FREDERICK THE GREAT.

A.D. 1712-1786.

THE PRUSSIAN MONARCHY.

The grandfather of Frederick the Great fought in the coalition against Louis XIV., and was permitted by the Treaty of Utrecht to crown himself King of Prussia. Prince Eugène, who saw in this the nucleus of a new antagonistic power in Germany, declared that the Imperial ministers who consented to it deserved to be hanged.

The character of this man as well as that of his consort is revealed in the dying words of the Queen herself: "Do not weep for me. I go now to satisfy myself as to those things which Leibnitz could never explain to me, Space, Infinity, Existence; Non-existence; and I leave to the King the ceremonials of my funeral, in which he will find a new opportunity for the display of his magnificence."

Under a new sovereign the court assumed a new aspect. Frederick

William I., father of Frederick, had far truer and more solid ideas of greatness. The frivolities and expenses of the court disappeared, and the rule of economy succeeded that of extravagance. The campaigns of the Low Countries had made the new King acquainted with the organization of his army, and he determined that, instead of wasting her strength for the rights of others, Prussia should become an independent power capable of maintaining her own. His new regulations for the revenues, for the economy of his court, and for the discouragement of luxury, had all the same object, to increase the wealth of the nation and provide for the support of his army. The passion for soldiers became even an eccentricity in him. His agents in foreign countries would kidnap men of size, and no present from other sovereigns was so acceptable as that of a few recruits six feet high for the Potsdam body-guard.

Ministers as well as private individuals bowed before the stern discipline which the love of military organization caused him to adopt, and Prussia was converted, as Frederick the Great has said, from being the Athens into the Sparta of the north. Frederick William, in fact, was an autocrat. His treatment even of his own children was severe. But at his death he left to his successor a prosperous and contented kingdom, flourishing in its revenue and supporting an army of nearly 80,000 men, which, from its discipline and organization, was to be the terror and admiration of Europe.

Frederick the Great was born at Berlin. Educated by French refugees, he early showed a lively admiration for the literature, ideas, and even the fashions of that nation, and an utter disinclination to become a soldier, which was the intention of his father, who, in great disgust, gave him the sobiquet of the "little dandy." The study of the French language, which he always used in writing, the study of history and philosophy, the practice of the beaux arts and the composition of writings, of which some are remarkable, filled up the years of his youth and enabled him to forget the harsh treatment of his father, whose spirit was exclusively military, and who was the enemy of all intellectual culture. When eighteen years old he prepared to fly the country to escape the ill-treatment of his father, but the attempt was frustrated, and he was obliged to leave court and reside at Custrin, and to familiarize himself with the affairs of war and administration.

In 1732 he married, at his father's express command and against his inclinations, a princess of the house of Brunswick, and was despatched to serve in the army which joined Prince Eugène. Frederick returned from the campaign less enthusiastic than ever for the career of arms, and retired to the Château of Rheinsberg, where he lived till 1740 surrounded by savants and men of letters, occupied with science and a correspondence with the most celebrated men of the day. As a vivid exposition of his sentiments at this time, there remains his refutation of "the Prince"

of Machiavelli, in which he raises his voice energetically against the despotic principles of the Florentine publicist, and traces with philosophic severity the true duties of a sovereign. It is said that on his becoming King he tried to arrest the publication of this book. The retreat of Rheinsberg was called the Sojourn of the Muses, and it was really a school of arts and politeness. Frederick received there the celebrated men of all countries. He was engaged in correspondence with Maupertuis, Algarotti, and, above all, with Voltaire.

But all this was about to be changed. In the same year of the publishing the "Anti-Machiavel" (1740), Frederick's father died and left him master of the kingdom. It was in a flourishing condition, and it possessed a fine army, which had never been beaten. But notwithstanding the growing power of Prussia, it had not yet, according to Frederick's own expression, a definite national character, it was more like an electorate than a kingdom. From the moment of his ascending the throne he showed a grand ambition to elevate the kingdom to the first rank among nations. He directed his attention to two principal objects—the finances and the army; increased the number of the troops, and profited by the embarrassments of Maria Theresa to make a treaty with France and gain Silesia, which he nearly lost, and again regained within the next three years, defeating the Austrians at the battle of Mollwitz.

Peace now ensued for ten years, and numerous reforms gave an extraordinary development to the prosperity of Prussia. Marshes were drained,
manufactures established in all parts, sterile lands put under culture,
cities founded, new industries introduced. Energetic efforts to banish
the remains of feudalism were made, banks of credit were created, and
a new code of laws promulgated, with liberty of conscience for all: such
were some of the principal things accomplished by Frederick, who, by a
singular contradiction, practised the principle of absolute government,
while in theory he approved of what are to-day called constitutional
governments. At the same time he reorganized the Academy at Berlin
established by Leibnitz, made Manpertuis president, and attracted many
foreign savants to his court, the most famous of whom was Voltaire, by
this act rendering the greatest service to the civilization of Prussia.

In 1756 the Seven Years' War broke out, and Prussia saw assembled against her France, Austria, Saxony, and Russia. From the consequences of such an alliance, the activity, courage, and genius of Frederick saved the nation. He had no allies except a few troops sent from England, and more than once was in danger of being totally crushed. In the seventeen battles in which he was engaged, defeat was often his portion, but he also made some dazzling victories, as at Rosbach and Leuthen. The battle at Rosbach took place on a bitter cold day in November. Frederick had 20,000 men. Coming against him were 50,000 French and Austrian soldiers. Addressing his troops that day, Frederick said:

"Comrades, you know that there have been no watchings, fatigues, sufferings or dangers that I have not shared with you up to this moment. You see me now ready to die with you and for you. I ask, comrades, that you return zeal for zeal, and love for love. Counting from this day you shall draw double pay. Forward!" The onset was superhuman, bringing swift destruction to the foes. The artillery crushed them; the infantry bayoneted, shot, and broke them; the cavalry rode over and sabred them; no time was given them to deploy, form, or retreat. The three arms were combined to work under the most favourable circumstances, physical, moral, and personal. In an hour and a half a victory was gained with a Prussian loss of only 300 men.

In 1763 a sudden change of sovereigns in Russia broke the coalition of nations, and Frederick came out of the conflict with the reputation of one of the greatest commanders of his time. Peace was signed and the position of affairs remained unchanged, except that Prussia was stripped of men and money. To heal the wounds, Frederick devoted all his energies. He re-established the towns and cities, gave an energetic impulse to agriculture, commerce, and industry, and undertook a series of measures of which the general result was to establish again as quickly as possible the material prosperity of the ccuntry.

In 1783 a new cause for alarm arose, by the plan of the Emperor of Austria to obtain Bavaria. Frederick was in his seventy-fifth year, but as strong in policy as ever, and he formed at this time the famous confederation of German princes known as the "Fürstenbund," which completely frustrated the attempt of the Emperor, and was the last act in Frederick's life, as in August, 1786, he died at San Souci, and left his kingdom, nearly doubled in size, to his nephew Frederick William.

CHRONOLOGY.

A.D.		Age	A.D.		Age
1712 Date o	f birth.		1756	Began Seven Years' War	44
	n in Potsdam Guards			Victor at Prague, Rosbach,	
1728 Visited	Dresden	. 16		and Lissa; defeated at	
	y beaten by his father			Kolin	
	pted to leave Prussia		1758	Victor at Zorndorf; lost battle	1
1732 Compe	lled to marry	. 20		of Hochkirchen	46
1736 Took u	p residence at Rheins	-	1759	Defeated at Kunersdorf;	
berg		. 24		victor at Torgau and at	
1740 Becam	e king; abolished tor	-		Pfaffendorf 4	7-48
ture	; met Voltaire	. 28	1763	Signed Peace of Hubertsberg	51
1741 War	with Austria; tool	7	1772	Took part in partition of	
Bres	lau and Silesia	. 29		Poland	60
1746 Treaty	of Dresden; published	1	1778	Prevented partition of Bavaria	
"Fr	ederician Code"	. 34	1785	Formed "Fürstenbund"	73
1750 "Œuv	res Diverse"	. 38	1786	Died.	



WASHINGTON.

A.D. 1732-1799.

AMERICAN REVOLUTION.

Washington was born in Westmoreland County, Virginia, on the 22nd of February, 1732. Peter the Great had died seven years before. The lives of Catherine II., Maria Theresa, Frederick II., Joseph II., and Louis XVI. cover pretty nearly the same period as Washington's. The same may be said of the lives of Burke, Chatham, Warren Hastings, Clive, Robespierre, and Wesley. The pedigree of the Washington family is still somewhat obscure. They probably emigrated from the north of England. The father of George was a well-to-do man, and at his death, in 1743, left to his family a good estate and other property. George started in life very poorly furnished with school learning; had no Latin, no Greek, no modern language but his mother-tongue, and in that little more than reading, writing, and arithmetic. He made some acquaintance

with geometry, and its practical application in surveying. In boyhood he was fond of athletic sports, and of mimic military exercises. Among his schoolfellows his character won respect, and appeal was made to him on matters in dispute. After leaving school (1748) he followed up the study of geometry and the practice of surveying, and after a short engagement under Lord Fairfax was appointed public surveyor. In 1751 he was appointed adjutant-general to one of the military districts of Virginia. The death of his elder brother in 1752 threw upon him large family responsibilities; and in the next year he was chosen to execute a difficult mission to the French commander, whose post was some five or six hundred miles distant. The memorable struggle was beginning between French and English for the possession of the North American continent. In 1754 Washington was second in command in the campaign against the French. In the following year, war having been declared, he served as a volunteer aide under General Bradlock, and showed a reckless bravery at the battle on the Monongahela. 1758, after having succeeded in getting his militia organized as the royal forces were, he resigned his commission because there seemed to be no hope of promotion for him in the royal army.

Washington now married (January, 1759), and during the next fifteen years occupied himself chiefly with the management of his estates and other private affairs. For some years, however, he was a member of the House of Representatives, and one of the most punctual and business-like. In the disputes with the mother-country about taxation, while resolutely controverting the right to tax, he earnestly deprecated a rupture, until he saw that it could only be avoided by the sacrifice of principle. The first general Congress met in 1774, and Washington was one of its members; and in June, 1775, he was named commanderin-chief. Formidable difficulties confronted him. He had had no experience in handling large bodies of men; he had no material of war, nor means of getting it, and there was no strong Government to support him. Hence progress was slow, and reverses were frequent. But through all which his patience, his courage, his good sense and sagacity, and his inflexible resolution carried him to ultimate success. Boston was evacuated by the English troops in March, 1776; on the 4th of July the same year was made the Declaration of Independence. battles of Long Island, Trenton, Princeton, Brandywine, Germantown, &c., followed; the French came to the aid of the Americans in 1778, and Philadelphia was evacuated. The struggle was virtually closed by the fall of Yorktown and the capture of the English army under Lord Cornwallis in October, 1781. Success created new dangers and difficulties, against which the commander-in-chief had strenuously to contend. At length New York was evacuated, on the 25th of November. 1783, and on the 4th of December Washington spoke his grave farewell

to his officers. Two days before Christmas he resigned his commission and retired to his estate, Mount Vernon. In 1787 he was a member of the Convention which prepared the Constitution, and in 1789 entered upon office as first President of the United States. There is something startling in the juxtaposition, in the same year, 1789, of two such memorable facts as these—the Constitution of the United States came into operation, and the States-General met at Paris; both new beginnings, openings of courses leading to goals still unknown. dent. Washington had troubles enough with his Cabinet, which was sharply divided into Federalists and anti-Federalists, the two parties headed respectively by Hamilton and Jefferson. Foreign relations, too, were uneasy and perplexing. Washington would fain check the growth of bitter party spirit, and avert foreign war. He would willingly have retired at the close of his term, but he could not be spared, and was unanimously re-elected. At length, having done a good life's work, he determined in 1796 to cease from his labours, and issued (September) his memorable farewell to his country. He witnessed the installation of his successor in the Presidency, and then retired to his home. In little more than two years the final summons came. Washington died on the 14th of December, 1799.

JEFFERSON'S ESTIMATE OF WASHINGTON .- "His mind was great and powerful, without being of the very first order; his penetration strong, though not so acute as that of a Newton, Bacon, or Locke; and, as far as he saw, no judgment was ever sounder. It was slow in operation, being little aided by invention or imagination, but sure in conclusion. Hence the common remark of his officers, of the advantage he derived from councils of war, where, hearing all suggestions, he selected whatever was best; and certainly no general ever planned his battles more judiciously. But if deranged during the course of the action, if any member of his plan was dislocated by sudden circumstances, he was slow in a readjustment. The consequence was, that he often failed in the field and rarely against an enemy in station, as at Boston and York. He was incapable of fear, meeting personal danger with the calmest unconcern. Perhaps the strongest feature in his character was prudence, never acting until every circumstance, every consideration was maturely weighed, refraining if he saw a doubt, but, when once decided, going through with his purpose, whatever obstacles opposed. His integrity was most pure. his justice the most inflexible, no motives of interest or consanguinity, of friendship or hatred, being able to bias his decision. He was, in every sense of the word, a wise, a good, and a great man. His temper was naturally irritable and high-toned; but reflection and resolution had obtained a firm and habitual ascendency over it. If ever, however, it broke forth, he was most tremendous in his wrath. In his expenses he was honourable, but exact; liberal in contributions to whatever promised

utility, but frowning and unyielding in all visionary projects, and all unworthy calls on his charity. His heart was not warm in its affections; but he exactly calculated every man's value, and gave him a solid esteem proportionate to it. His person was fine, his stature exactly what one could wish, his deportment easy, erect and noble, the best horseman of his age, and the most graceful figure that could be seen on horseback. Although in the circle of his friends, where he might be unreserved with safety, he took a free share in conversation, his colloquial talents were not above mediocrity, possessing neither copiousness of ideas nor fluency of words. In public when called upon for a sudden opinion, he was unready, short, and embarrassed. Yet he wrote readily, rather diffusely, in an easy and correct style. This he acquired by conversation with the world, for his education was merely reading, writing, and common arithmetic, to which he added surveying at a later day. His time was employed in action chiefly, reading little, and that only in agriculture and English history. His correspondence became necessarily extensive, and with journalizing his agricultural proceedings occupied most of his leisure within doors. On the whole, his character was in its mass perfect, in nothing bad, in a few points indifferent, and it may truly be said that never did nature and fortune combine more perfectly to make a man great, and to place him in the same constellation with whatever worthies have merited from man an everlasting remembrance. For his was the singular destiny and merit of leading the armies of his country successfully through an arduous war for the establishment of its independence; of conducting its councils through the birth of a government, new in its forms and principles, until it had settled down into a quiet and orderly train; and of scrupulously obeying the laws through the whole of his career, civil and military, of which the history of the world furnishes no other example."

CHRONOLOGY.

A.D.	Age	A.D.	Ag	ge
1732	Born in Westmoreland, Virginia.	1776	Battle of Bunker Hill 4	11
1752	Adjutant-general in Virginia. 20	1777	Defeated at Germantown 4	15
1754	Second in command against	1781	Received capitulation of Corn-	
	the French	3	wallis at Yorktown 4	19
1755	Distinguished himself at Mo-	1783	Resigned command of the	
	nongahela 23	3	army 5	51
1758	Resigned military command. 26	1789	Elected first. President of the	
1759	Married 27	7	United States 5	57
1774	Delegate to Philadelphia Con-	1793	Re-elected 6	31
	gress 42	1796	Refused a third election 6	34
1775	Appointed commander-in-	1797	Retired from public affairs . 6	
	chief of army 43	1799	Died at Mount Vernon 6	57



JEFFERSON.

A,D. 1743-1826.

AMERICAN STATESMAN.

Thomas Jefferson, twice President of the United States, was born in Albemarle County, Virginia, April, 1743. His father was an early settler there; had been employed in various boundary surveys, and aided in constructing the first map of Virginia ever made.

After receiving a tolerable preliminary education, Jefferson studied at William and Mary College, Williamsburg, and learned a great deal from its professor of mathematics, Dr. Small, a Scotchman, whose services to his early culture are gratefully acknowledged in his autobiography. He was a student of law when, in the House of Burgesses of Virginia, he heard with sympathy and admiration Patrick Henry declaim against the Stamp Act.

Two years later he was called to the bar, and was rising to eminence

in his profession, when he diverged permanently into politics. In 1769 he was elected a member of the House of Burgesses for his county, and made an unsuccessful effort for the emancipation of the negroes. He soon became one of the leaders of those younger members of the house, who were for bold measures, and disliked the timidity of their senior fellow-representatives. On the dissolution of the Virginia Assembly by the Governor, after its assertion of the right of self-taxation, Jefferson, joined Washington, Patrick Henry, and others, in protesting.

In 1773 he aided in organizing the Standing Committee of Correspondence, which proved an important agency in the American Revolution, maintaining as it did a constant communication between the disaffected provinces. He was a member of the first Virginian convention, which met independently of the British authorities; and a bold paper, which he laid before it, entitled, "A Summary View of the Rights of British America," was adopted by Burke, and republished with some alterations by him in London. To the General Congress Jefferson was sent as one of the delegates of Virginia, and the original draught of the celebrated Declaration of Independence was his handiwork.

He retired from Congress to labour in the legislature of his native state, where he procured the abolition of entails, and, after a long struggle, that of the Anglican Church establishment. He advocated a general scheme of State education, and, with even less success, a plan for the gradual emancipation of the slaves.

He does not seem to have had any military ambition or skill, and contented himself during the War of Independence with discharging the civil duties of the Governorship of Virginia, to which he was elected in 1779. He had twice previously declined, for domestic reasons, a mission to Europe. However, after peace was declared, he accepted the mission, and in company with Franklin and Adams went to Paris to regulate treaties with the nations of Europe. In these negotiations his principal success was with Frederick the Great.

He succeeded Franklin as Minister at Paris, and witnessed the early scenes of the French Revolution. On his way home, in 1789, he was met by the offer of the Secretaryship of State, which he accepted. He entered on his duties in March, 1790, and was the leader of the democratic section of the Cabinet, in opposition to the Federals led by Alexander Hamilton; and Washington had no small difficulty in making his divided ministry work.

At the close of 1793 Jefferson resigned, and returned to his plantations to occupy himself with study and agriculture: but he could not forget politics, and in his retirement he directed in some measure the councils and operations of the democratic anti-federalists, the party opposed to Washington. In 1796 he was nominated candidate for the Presidency; was defeated by Adams, but became Vice-President. In this position he

was the life and soul of the democratic party, and he reaped the fruits of his exertions when, in 1801, he was elected President. It was with Jefferson's election that, as M. Guizot observes, the long rule of the democratic party in the United States began; and to his leadership its triumph is mainly due.

The great event of his first Presidency was his negotiation of the purchase of Louisiana, which had been ceded to France by Spain, and which Napoleon thought it would be difficult to preserve from the clutches of

England during the war.

At the expiration of his term of office, he was re-elected. His second Presidency was distinguished by the promptitude and stringency with which he laid and maintained an embargo on outward-bound American vessels, when the commerce of the United States was threatened with obstruction. At the close of his second Presidency, Jefferson withdrew to private life, still taking a keen interest in public and local affairs. Through his exertions the University of Virginia was founded. His later years were somewhat clouded by pecuniary difficulties, the result of obligations incurred in behalf of a friend. An autobiography which he had commenced, and which is printed in his works, stops unfortunately at the close of his residence in Paris. His "Notes on Virginia," drawn up on the eve of his mission to Europe, have been often reprinted. He died on the 4th of July, 1826—the very day on which, fifty years before, the Declaration of Independence was signed.



NELSON.

A.D. 1758-1805.

BRITISH ADMIRAL.

Horatio Nelson, the most celebrated of British naval heroes, was born in the parsonage-house of Burnham Thorpe, a village in the county of Norfolk, of which his father was rector. He was educated first at Norwich, and next at North Walsham, but in his twelfth year he became a midshipman under his uncle, Captain Suckling, of the Raisonnable. Soon after this he sailed to the Antilles in a vessel belonging to the mercantile marine. On his return he joined the Triumph, then stationed as a guard-ship in the Thames, and he was next appointed to the Carcass, one of the vessels sent on an expedition to the North Pole, under the orders of Captain Phipps. Then he went to the East Indies in the Sea-Horse, with the squadron commanded by Sir Edward Hughes. When he had been about eighteen months in India, he felt the effects of the

climate. Attacked by a disease which baffled all power of medicine, he was reduced almost to a skeleton; the use of his limbs was for some time entirely lost, and the only hope that remained was from a voyage home. Accordingly he was brought home by Captain Pigot in the Dolphin, and had it not been for the attentive kindness of that officer on the way, Nelson would never have lived to reach his native shores. Speaking of his disappointment at this period, he said:-"I felt impressed with a feeling that I should never rise in my profession. My mind was staggered with a view of the difficulties I had to surmount, and the little interest I possessed. I could discover no means of reaching the object of my ambition. After a long and gloomy reverie, in which I almost wished myself overboard, a sudden glow of patriotism was kindled within me, and presented my king and country as my patron. then, I exclaimed, I will be a hero! and, confiding in Providence, I will brave every danger!" Long afterwards Nelson loved to speak of the feeling of that moment; and from that time, he often said, a radiant orb was suspended in his mind's eye, which urged him onward to renown.

In 1777 he obtained the rank of lieutenant, and in 1779 that of post-captain, when he was appointed to the command of the *Hinchinbrook*, in which ship he sailed to the West Indies, where he distinguished himself at the siege of Fort San Juan, and took the island of St. Bartholomew. But disease made fearful ravages among the men. Eighteen hundred were sent to different posts upon this wretched expedition, of whom not more than three hundred and eighty ever returned. Nelson himself was so ill that he was compelled to go back to England; but he speedily recovered, and after an interval of about four months he was appointed to the *Albemarle*, which was sent to the Baltic. During this voyage he gained a considerable knowledge of the Danish coast and its soundings, greatly to the advantage of his country in after times. The *Albemarle* was then sent on a cruise to Canada.

After the peace of 1783, Nelson passed several years in command of the Boreas frigate, stationed for the protection of trade at the Leeward Islands, and while there he married Mrs. Nisbet, a young widow. On the breaking out of the French revolutionary war he was appointed to the Agamemnon, and was placed under the orders of Lord Hood in the Mediterranean, where he displayed great bravery on many occasions, particularly at Toulon and the siege of Calvi, where he lost an eye. His name was not even mentioned, however, in the London Gazette, and he keenly felt the neglect. "They have not done me justice," he exclaimed; "but never mind, I'll have a gazette of my own." In the same prophetic strain he wrote, not long afterwards, to his wife:—"Had all my actions been gazetted, not one fortnight would have passed, during the whole war, without a letter from me. One day or other I will have

a long gazette to myself. I feel that such an opportunity will be given me. I cannot, if I am in the field of glory, be kept out of sight; wherever there is anything to be done, there Providence is sure to direct my steps."

These anticipations were soon to be fulfilled. He hoisted his broad pennant as commodore on board the *Minerve*, and fell in with the Spanish fleet, from which he escaped, and conveyed the intelligence to Admiral Jervis, off Cape St. Vincent, on the 13th of February, 1797. The same evening the enemy appeared, and Nelson, shifting his flag to the *Captain*, had a principal part in the glory of that day, for which he received the companionship of the Order of the Bath He had been previously created a rear-admiral.

Nelson commanded the inner squadron at the blockade of Cadiz, and soon afterwards he was detached against Santa Cruz, in Teneriffe. This enterprise, however, failed, after a fierce contest, in which Nelson received a shot in the right elbow that rendered amputation necessary. Soon afterwards he was despatched to the Mediterranean to observe the vast armament then preparing at Toulon. In a fog he missed the French fleet, which had sailed for Egypt, but he afterwards fell in with it in the Bay of Aboukir. "Before this time to-morrow," said he to his officers, "I shall have gained a peerage or Westminster Abbey!" A sanguinary engagement ensued, in which the British were completely victorious. For this achievement Nelson was made Baron of the Nile, rewarded with a pension, and covered with honours by different sovereigns. He next rendered an important service in the restoration of the King of Naples, on which occasion, however, he tarnished his reputation by trying and executing the Neapolitan admiral Caraccioli. In 1800 he landed in England, where he soon after separated from his wife, through an unfortunate attachment to the wife of Sir William Hamilton. The year following he added to his renown as a naval hero by the destruction of the Danish ships and batteries at Copenhagen, for which he was created a Viscount. His next enterprise was an unsuccessful attempt on the flotilla in the harbour of Boulogne.

On the renewal of hostilities with France, Lord Nelson was appointed to command the fleet in the Mediterranean, where for nearly two years he was employed in the blockade of Toulon. At length the French fleet escaped out of port, on the 30th of March, 1805, and, being joined by the Spanish squadron, proceeded to the West Indies, whither Nelson followed them with the utmost expedition; but, after a most extraordinary pursuit, the flying enemy returned to Europe and got safe into Cadiz. The English admiral, as soon as he had recruited himself, sailed for Cadiz, off which harbour he arrived on the 29th of September, and on the 21st of the following month was fought the battle of Trafalgar, previous to which Nelson signalled his last order, "England expects

every man to do his duty." His own example went with this injunction; but unfortunately, by exposing himself too conspicuously, and neglecting to take off the insignia of his rank, he became an object to the marksmen placed in the tops of the ship with which he was engaged. In the heat of the battle a musket-ball struck him on the left shoulder, and, passing through the spine, lodged in the muscles of the back. He was carried below, and the surgeon declared the wound to be mortal. He lived just long enough to be made acquainted with the number of ships that had been captured, and his last words were, "Thank God, I have done my duty." His body was brought to England, and buried in St. Paul's Cathedral.

CHRONOLOGY.

A.D.	Age	A.D.	Age
1758	Born at Burnham Thorpe.	1794 Lost an eye at Calvi, Corsica.	36
1771	Entered navy	1794 Blockaded Leghorn	37
	-74 Sailed with Capt. Phipps to	1796 Lost right arm at Santa Cruz.	38
	North Pole	1797 Made rear-admiral	39
1776	Made lieutenant 18	1798 Defeated French fleet at	
	Post-captain 21	Aboukir	40
	Distinguished himself in the	1799 Occupied Leghorn	
	West Indies 22	1801 Vice-admiral; gained battle	
1781	Sent to North Sea 23	of Copenhagen	
	,, Quebec 24	1803 Commanded in the Mediter-	
	Served at Leeward Islands . 29	ranean	45
	Sent to the Mediterranean	1805 Defeated French and Spanish	
1,00	under Lord Hood 35	at Trafalgar; killed	
	under hord hood ob	at Iranaigai, kinea	T. 8



NAPOLEON I.

л. р. 1769-1821.

THE FRENCH REVOLUTION.

The founder of the French Empire is the greatest personage of recent times, or at all events, the individual who occupies the most conspicuous place in modern history. During a quarter of a century, in a period of revolutions and of unexampled vicissitudes, his name was associated with all public events, on the course of which he exercised an immense influence. It thus happens that the memoirs of this illustrious man are so complicated with general history, as to render them an epitome of the principal events of the times in which he flourished. This observation will be found to apply with peculiar force to the life and achievements of Napoleon I., whose biography, fully narrated, must lose its individuality and become, to a certain extent, the annals not merely of the country which was the theatre of his own exploits, but of all the States of Europe and of all the

leading characters concerned in their government and administration. We have here only space to indicate some of the more remarkable incidents of his marvellous career.

Napoleon Bonaparte was born at Ajaccio in Corsica on the 15th of August, 1769, two months after the conquest of the island by the French He was the son of Charles Bonaparte, a noble but not wealthy Corsican, by his wife Letizia Ramolino. Through the influence of the Count be Marbeuf, military governor of Corsica, he entered in 1779 the school of Brienne, from which he passed, in 1784, to the military school In 1785 he was appointed sub-lieutenant of a regiment of Happening to be in Corsica in 1792, he was promoted to the provisional command of a battalion of the National Guard. Proscribed by Paoli, who was then master of the island, and an ally of the English, he resided for a considerable time with his mother and sisters, first at Nice and then at Marseilles, in very straitened circumstances. He was advanced to the rank of captain in 1793, and soon afterwards he received orders to suppress the Federalists of Marseilles, an undertaking which he accomplished with complete success. Nominated in the same year adjutant at the siege of Toulon, then in the possession of the English and Spaniards, he caused its surrender by capturing the fort of L'Equillette, and was rewarded with the rank of brigadier-general of artillery. Ordered in 1794 to command the artillery of the "army of Italy," he had already achieved brilliant successes when he was suspended from his functions as a suspected person, after the 9th Thermidor, in consequence of his connection with the terrorists, Robespierre the younger and Ricord. Having been placed under arrest for a short time, he was recalled to Paris, and finally his name was struck off the active list.

The insurrection at Paris against the Convention, on the 5th of October, 1795, changed the situation, and Napoleon, being chosen by Barras to take the second command, secured the victory to the Convention in less than an hour of actual fighting. He obtained in recompense the grade of general of division, with the chief command of the army of the interior. In the following year he married Josephine, widow of the Viscount de Beauharnais. Within a week after his marriage he left France, in order to assume the chief command of the "army of Italy," then vanquished, disorganized, and bankrupt (March, 1796). In the course of a year he completely routed the Piedmontese army and five Austrian armies, each numerically stronger than his own. Austria sued for peace, and signed the famous treaty of Campo Formio, which was by no means satisfactory to the Directory, as the victorious general had consulted his personal glory rather than the interests of the republic.

In 1798 he embarked for Egypt, took Malta and Alexandria, gained the battle of the Pyramids, and made (1799) an expedition into Syria, which was signalized by the taking of Jaffa, of Sour, the victories of Nazareth and of Mount Tabor, and the raising of the siege of Acre. Returning to Egypt, he beat the Turks at Aboukir, and then embarked for France. On the 9th of November, 1799, he brought about what is termed the Revolution of the 18th Brumaire, abolished the Directory, and caused himself to be appointed First Consul.

The following year (1800) he placed himself at the head of the army of reserve which he had organized secretly at Dijon, crossed the Alps, gained the victories of Montebello and of Marengo, returned to Paris, and signed in succession (1801) peace with Austria, Naples, Portugal, and Russia, a secret treaty with Spain, a concordat with Pope Pius VII., and finally (1802) the treaty of Amiens with England. In the latter year a senatus-consultum conferred on him the title of First Consul for life. The treaty of Paris with the United States, the resumption of hostilities with England, the evacuation of St. Domingo (1803), and the execution of the Duke d'Enghien (1804), were the last acts of the Consulate, and an organic senatus-consultum (May 18) conferred on Bonaparte the title of Emperor, under the name of Napoleon I. The new sovereign was consecrated at Paris by the Pope (December 2), and crowned at Milan as King of Italy in the following year (1805).

A third continental coalition was soon formed against him, but the Emperor having raised the camp of Boulogne rapidly began a celebrated campaign. The capitulation of the Austrian army at Ulm, the occupation of Vienna, and, lastly, the victory of Austerlitz over the Austrians and the Russians, compelled Austria to sign the treaty of Presburg. the meantime the French fleet, united to that of Spain, had been destroyed by Nelson at Trafalgar. The following year (1806) Napoleon placed his brother Louis on the throne of Holland. Prussia and Russia now declared war against the Emperor, whose victories of Jena and Auerstadt were followed by the conquest of Prussia, and the defeat of the Russians at Eylau and at Friedland. The treaties of Tilsit with those two Powers terminated the war. Napoleon next turned his attention to Portugal and Spain; Lisbon was occupied by a French army, and Joseph Bonaparte, proclaimed King of Spain, made his entry into Madrid. Then commenced that insurrection which was one of the chief causes of the fall of the Empire. A fresh war with Austria (1809), which Power, defeated at Wagram, signed the treaty of Vienna; the divorce of Napoleon and his marriage with the Archduchess Marie Louise; the reunion of Holland with the Empire; the evacuation of Portugal; the renewal of hostilities with Russia; the disastrous retreat from Moscow; the sixth continental coalition; the victories of Lutzen and Dresden; the defeat of Leipzig; the invasion of France, and the admirable campaign of 1814 are the principal events of the last five years of the Empire. On the 31st of March, 1814, the allies entered Paris, and the senate decreed that the Imperial throne was vacant. Bonaparte was banished to the Isle of Elba,

the sovereignty of which was granted to him in perpetuity. Making his escape in February, 1815, he landed in France, made his way to Paris, and, having mustered a sufficient force, marched (July 12) to the frontiers, with the design of cutting off the English under Wellington and the Prussians, commanded by Blucher, in the vicinity of Brussels. On the 15th hostilities commenced near Charleroi, when the Prussians were repulsed, and Napoleon advanced to Fleurus. The next day were fought the battles of Ligny and Quartre-Bras, when the Prussians were compelled to fall back to Mont St. Guibert and the British to Waterloo. On the 18th the great contest was fought at Waterloo, where the French were completely defeated. Napoleon was exiled to St. Helena, where he died on the 5th of May, 1821.

It is upon a military foundation that Napoleon's fame must rest; here he forms the terminal link of a long chain; Alexander, Hannibal, Cæsar, Charlemagne, Ghenkis Khan, Tamerlane, Gustavus Adolphus, Turenne, Frederick II., Napoleon—the ten greatest warriors of the world. Whenever and wherever war exists, there his name will be held in honour. As a systematic slayer of men he has never been equalled.



WELLINGTON.

A.D. 1769-1852.

BRITISH COMMANDER.

ARTHUR WELLESLEY, first Duke of Wellington, was descended from a family of English origin, which for several centuries had been settled in Ireland. He was born in 1769; received the elements of education at Eton, and was afterwards sent to the Military College at Angers, in France, where he studied several years under Pignerol, the great engineer.

In 1787 he was appointed to an ensigncy in the 73rd Regiment of foot, and ten months later became a licutenant. In 1791 he attained the rank of captain, and in 1793 was elected lieutenant-colonel in the 33rd Regiment. His career in the field commenced in Holland in 1794; his next service was in India (1796), where his brother was governor-general. In 1799 Seringapatam, capital of Mysore, fell before

the allied British and native army, and Colonel Wellesley was appointed governor of the territory, and exercised the power conferred on him in such a way as to obtain the gratitude of the natives, and to display his talents for organization and command.

In 1803 he was raised to the rank of major-general, and soon after was appointed to the command in the Mahratta wars. With only 7500 troops he succeeded in routing a force of 50,000 natives, and broke the power of the chiefs. Shortly after the close of the Mahratta war, General Wellesley quitted India, and, after an absence of nine years, landed once more in England (1805). His appointment to the colonelcy of the 33rd Regiment, marriage, and election as M.P. for Rye, all took place in the spring of 1806. In 1807 he was appointed Secretary for Ireland, under the Duke of Richmond.

At this juncture Napoleon, who had crushed Austria and Prussia and formed an alliance with Russia, proceeded to put into execution his design upon Portugal and Spain. He sent Junot to take possession of Lisbon, and poured his troops into Spain. The nations rose as one man, and sent to England to solicit assistance. A force of 10,000 men was then waiting at Cork to be despatched on some expedition or other, and the ministry resolved to send these troops and General Wellesley to Portugal, without any definite plan either to their destination or the service they were to perform. After landing, and obtaining some slight advantages, the capitulation of Cintra followed, and later Napoleon overthrew the Spanish armies, and the retreat of Sir John Moore to Corunna followed. General Wellesley, who had returned to England through an inability to act with his superiors, was reappointed to the chief command of a new expedition. In 1809 he landed at Lisbon, compelled Soult to abandon Oporto, and defeated the French at Talavera. But the position of the British army was exceedingly critical, and he was forced to fall back on Merida and Lisbon by a series of prompt and rapid marches.

Napoleon, enraged at the result of the battle of Talavera, resolved to pour an overwhelming mass of troops into Spain, and directed that nine powerful corps, numbering 280,000 men, should be sent to the field. Wellington had only 55,000 disposable troops, including 30,000 Portuguese. With far-seeing eye he had already divined the proper mode of meeting the storm, and ordered the erection of the famed lines of Torres Vedras, which formed an impregnable fastness and a secure retreat, as well as a safe base of operations when he should resume the offensive. After a delay of some weeks the French advanced under Massena. Wellington retired to his inaccessible stronghold, after defeating a portion of the enemy at Busaco. After a month Massena abandoned his position in despair, and made a retreat to Santarem. Wellington seized the opportunity to invest the fortress of Almeida, one of

the keys of Portugal, and repulsed the French at Fuentes d'Onoro, in March, 1811.

In 1812 he accomplished a brilliant campaign in Spain. In June, with 40,000 men, he advanced against the forces of Marmont, who, near Salamanca, attempted to cut off the march of the British from Ciudad Rodrigo. At first Marmont gained some advantages of position, but in his eagerness to prevent the retreat of the enemy over-extended his line and allowed a gap to intervene, which the eagle glance of the British general detecting, he ordered an attack at that point, and, as he himself said, "In forty minutes defeated an army of 40,000 men." In August, 1812, he made a triumphant entry into Madrid, and undertook the siege of Burgos, but was unsuccessful, and obliged to retreat to Portugal. In 1813 he received reinforcements, crossed the Tormes, Douro, Esla, and Ebro, and entered Spain. Driving everything before him, he overtook the retreating French army on the plain of Vittoria, and inflicted on them a most decisive defeat. This battle freed the peninsula from the French invaders, and they were driven to the recesses of the Pyrenees.

Soult, as "lieutenant of the Emperor," once more tried his strength against his invincible antagonist, and a succession of combats followed, called the "Battles of the Pyrenees," in which the French lost 13,000 men, and were at last driven back into their own country. In March, 1814, Wellington had succeeded in occupying Toulouse, when Napoleon's abdication ended the great Peninsular War. In June, 1814, Wellington broke up his army, and returned to England; was made Marquis of Douro and Duke of Wellington, received 400,000l., and entered the House of Lords. The highest honours were also showered upon him by the continental allies, and he was made field-marshal in each of the principal armies of Europe, a Portuguese magnate, and a Spanish grandee.

In January, 1815, he represented England at the Vienna Congress, and united with Austria and France in resisting the rapacious demands of Russia and Prussia. The news of Napoleon's escape from Elba and unopposed restoration to the imperial throne, came like a thunder-peal on the wrangling Congress. Suspending at once their contentions, they signed a new treaty of alliance, pledged themselves to support Louis XVIII., and proceeded to adopt measures to put down their terrible antagonist. Wellington assumed the command of the English and Dutch forces stationed in the Netherlands, and meanwhile the Prussian and English contingents took up a position in front of the Belgian capital.

In June Napoleon crossed the frontier with his army, drove in the Russian outposts, and carried Charleroi and Ligny. Wellington retired to the position he had previously marked out at Waterloo, where he resolved to await the attack of the French. The struggle which took

place on the 18th of June was obstinate and sanguinary; defeat was changed into unparalleled and irretrievable disaster; and Napoleon's sun set for ever.

The military career of Wellington thus came to a close, but he survived to give more than one generation of his countrymen the benefit of his civil services. In 1818 he attended the congress at Aix-la-Chapelle; in 1822 represented Great Britain at Verona. In 1826 he was sent on a special mission to St. Petersburg; and in 1827 became commanderin-chief of the army, a post which he resigned when the premiership was conferred on Mr. Canning, whom he disliked and distrusted. In 1828, however, by the death of Mr Canning and dissolution of Lord Goderich's administration, Wellington became Prime Minister, and the constitution of the Cabinet gave unbounded satisfaction to the Tory party throughout the three kingdoms. In 1829 the famous Roman Catholic Relief Bill was passed, and a storm of invective immediately burst on him, which for violence has seldom been equalled. One of the leaders of the anti-Catholic party accused him of premeditated treachery to the Protestant party and treason against the constitution, and, refusing to retract his charges, accepted a challenge from the Duke, received his shot, fired his own pistol in the air, and tendered an apology.

In 1830 George IV, died, and the French Revolution broke out; and in November, as the Duke presented an attitude of unyielding resistance to the public feeling for reform in the representative system of the country, the Ministry was left in a minority, and the Duke of Wellington and his colleagues placed their resignations in the hands of the king. In 1834 he accepted the position of Foreign Secretary; but in 1835 Peel and his colleagues, having been outvoted on the Irish Church Bill, Wellington never again took charge of any of the civil departments of state. The command of the army reverted to him in 1842, and was confirmed to him by patent for life. In 1846, on the final overthrow of the Peel ministry, the Duke formally intimated his final secession from political life, and never again, except on military questions, took any prominent part in the debates in the House of Lords. But his interest in everything relating to the service of the Queen was in no degree abated, and though not one of "Her Majesty's advisers" by office, was incontestably so in fact until his death, which took place in 1852 at his residence, Walmer Castle.

The above account is taken from the excellent article by James Taylor, in the "Imperial Dictionary of Biography."

BOOK VIII.

Industry.

INVENTORS-DISCOVERERS-PHILANTHROPISTS.

INTRODUCTION.

Last of all, in our gallery of heroes, come the heroes of industrial civilization—the bold explorers who have enlarged the area of the civilized world, and the men who by inventive genius have added to the number and complexity of the processes whereby human wants are satisfied. one sense it was doubtless well to place this group of heroes last; for, while the groups of greatest poets and founders of religions carry us back into an almost mythical antiquity; and while art, philosophy, history, science, and politics have each and all of them their illustrious representatives in ancient as well as in modern times; on the other hand, we find that all the discoverers and inventors who have been thought worthy to be included among the hundred greatest men of history belong to modern times. Nor is this curious circumstance merely an accident; on the contrary, it affords an apt illustration of one of the most striking and important of all the general aspects of the history of civilization. It is not true that industrial art is later in its beginnings than the arts of warfare and statesmanship, or than the inclination toward scientific inquiry. In their most rudimentary beginnings all these things were, no doubt, nearly simultaneous with each other, as well as with art, religion, and poetry. Pre-glacial men scratched outline pictures of reindeer on their crude stone hammers; the first man who explained an eclipse as the swallowing of the sun by a dragon, propounded an hypothesis of the kind by which the beginnings of science and of theology are alike characterized; and poetry and music had their humble origin in tales about the dead hero, and rhythmical chants and dances in propitiation of his ghost. And in like manner the ingenious savage of primeval times who first discovered that it was easier and safer to float across a river on a log, if you hollowed out the log, was the legitimate precursor of Fulton and Ericsson. But the names of the clever men who invented canoes and bows and arrows are as utterly unknown to tradition as the names of the earliest myth-makers, or of those pre-Homeric heroes who won for the Aryan people the rich heritage of the southern peninsulas of Europe. only after civilization had already made considerable progress, after tribes of men had become united into large and stable political aggregates, and after the business of society had acquired a rather high degree of complexity, that individual men could achieve work of any sort on a sufficiently grand scale to arrest the attention of succeeding generations through thousands of years. Granting that some pre-Homeric hero may have had the native powers of a Hannibal, the fact that his achievements did not visibly affect great masses of society, but only the movements of a few petty tribes, would be enough to prevent his fame surviving, save, perhaps, in some vague, half-intelligible legends about giants and demi-But after the historical period, in the long career of nascent humanity, had fairly begun-after great societies had been formed, with generals and statesmen, poets and artists, and even philosophers—a long time had still to elapse before anything was heard of inventors of giant calibre and wonderful achievements like Arkwright and Watt. And this fact has in history a marked significance.

Before inventors of this sort were possible, it was necessary, in the first place, that society should have reached a state of comparative stability politically. The ages which witnessed the exploits of a Belisarius, a Pepin, or a Godfrey de Bouillon, were ages in which neither a Columbus nor a Gutenberg was possible. Amid such chronic political turmoil, there was no surplus energy which could be devoted to the exploration and colonization of remote countries, nor was there enough security for industry at home to permit the adoption of new devices for facilitating industrial processes. In the second place, it was necessary both that commercial operations should have begun to cover a wide geographical range, and that the physical sciences should have made considerable progress. The application of both these considerations to the case of a discoverer like Columbus, is obvious enough; but both are equally applicable to the case of such an inventor as Arkwright. posing that such a man could have been produced, and could have invented his spinning machine in the age of Augustus or of Trajan, no such results would have followed as were brought about a hundred years ago in England. The general knowledge of machinery was insufficient, and the general extension of commerce was also insufficient. And so it follows, in the third place, that when men of the intellectual calibre of Watt and Arkwright were born in such a state of society as that of ancient Rome, their attention was turned to other things, and not to the

mechanical arts; they became statesmen or lawyers, poets or philosophers, but not inventors on a grand scale. There was no lack of inventive talent on the part of the ancients, especially as applied to processes of warfare, as was illustrated by the skilful devices with which the Romans, in the first Punic War, wrought such wholesale destruction on the Carthaginian fleets. But the men who devised these remarkable engines, though they effected a temporary purpose, accomplished nothing toward extending permanently the control of mankind over the forces of nature, or toward modifying the career of industry; and so they are not remembered among the great inventors. The explanation of the non-appearance of Watts and Arkwrights in ancient times is not to be found, therefore, in any assumed lack of inventive talent, but in the social conditions which prevailed in antiquity and down to the close of the Middle Ages.

But there is a still more striking historic significance in the relatively late appearance of the heroes of industry. The paucity of inventors in antiquity, and their increasing frequency in modern times, serves as the index of a great change that has been slowly taking place in the prevailing character of human activity. Whereas the basis of civilization was once mainly military, it has now become mainly industrial. Whereas the occupation of the greater part of mankind was once fighting and pillage, it is now the peaceful cultivation of the earth and the transformation of the earth's various productions into endlessly complex instruments for satisfying human wants, both physical and æsthetic. Warfare has long been necessary for the purpose of securing and maintaining the political stability of great masses of men, without which industry itself could not attain to any high development. From this point of view, warfare has not yet ceased to be necessary, especially where civilized societies are molested or threatened by barbarous societies, and no doubt it will be a long time before warfare becomes extinct; but, in spite of this, the sphere of warfare in modern life has become very much restricted. In such countries as England and the United States, it takes up the time and attention of only a very small part of the community, and only at considerable intervals acts as a real disturbance to the prevailing occupations, which are almost entirely concerned, directly or indirectly, with industry. The enormous complication of modern society, which has been mainly brought about by the labours of industrial discoverers and inventors, in co-operation with scientific inquirers, has brought things to such a pass that men engage more and more unwillingly in warfare, and regard it more and more as an intolerable source of disturbance. And along with the diminution of the quantity of warfare, and the restriction of its sphere, there has gone on a gradual alteration in the feelings and in the manners of civilized men. change has been shown in increased regard for domestic comfort, in the

abolition of judicial torture and of cruel modes of punishment, in prison reforms, and generally in increased softness of temper and mildness of manner. That this change is due to the general substitution of industrial for military activity is too obvious to require detailed argument; yet, when duly considered in all its bearings, the connection of this change with human happiness will be found to be so close that, even had nothing else been accomplished by the inauguration of the industrial era, we should still have ample ground for regarding the great discoverers and inventors as among the chief benefactors of mankind. Though last in order, we can in no wise rank them as least in noble desert.

JOHN FISKE.



GUTENBERG.

A.D. 1400-1468.

MACHINERY—INVENTION OF PRINTING.

Foremost among our modern engines stands the press, and among all our heroes of modern industry the inventor of printing stands in the foremost rank. Gutenberg was born at Mayence in 1400 of a noble family, his true name being Hans Geinfleisch de Sulgelock. The name under which he is universally known was that of his mother's family, adopted by him on account of the political troubles of his time. In 1420, a disturbance occurring at Mayence immediately succeeding the entrance of the Emperor Frederick III., the young nobleman was forced to quit his native city, and it is generally believed that he went immediately to Strasbourg; at least he was in that city in 1434, and two years later formed a partnership for the working out of certain secret processes invented by him, among which must have been nothing less than the art of printing in

embryo. Five years later he was involved in a lawsuit, the papers of which are now carefully preserved in Strasbourg. These are the earliest documents relative to the art of printing. It was in 1439, at Strasbourg, that judgment was pronounced upon the subject of the working out of the secret process invented by Gutenberg. His associates, it appears, had been Andrew Dritzchen, of noble birth like himself, and who, like him, compromised his social position by being occupied in industrial pursuits, but a man full of enthusiasm, as were the other partners, Hans Riffe and Andrew Heilmann, all of Strasbourg. In the abandoned convent of St. Arbogaste the first attempt had been made, and the works had been executed with the greatest secrecy. There is a mention of materials and utensils, of lead, of a press, of a vice for holding the parts together, &c., and that the work should be ready for the coming fair at Aix-la-Chapelle. The wording is anything but clear, the aim seeming to be to avoid revealing to the public anything of which it ought to remain ignorant, At that epoch all industry surrounded itself with secrecy.

About 1446 he returned to Mayence, and permanently located himself there. The great expense involved in his undertakings had consumed all his means, and in 1450 he formed a new partnership with the rich gold-smith Faust, for the further exploitation of his admirable invention, and acquainted him with the results already obtained. Faust made the necessary advances, but later on introduced a third, Schaeffer, as partner or employé, and took such guarantees for the money advanced, that five years after he was able to break the connection by demanding of Gutenlerg a reimbursement. The latter, unable to satisfy his demands, was forced to hand over to him his apparatus and nearly all his stock.

After the break in partnership Faust and Schaeffer continued to print, and Gutenberg, on his side, succeeded in again establishing himself in the same city, where he brought out the first printed Bible, the famous "Bible of Thirty-six Lines," begun long before with other partners at Strasbourg

His last years were passed obscurely in the midst of hard work, and unhappily in the embarrassments of poverty. In 1465 Adolphe of Nassau named him Gentleman of the Court, and gave him a small pension. Three years after this occurred his death. Nothing is known of his private life. That he married appears from the fact, that in 1437 a complaint was entered against him at Strasbourg by a lady of rank, claiming the fulfilment of a promise of marriage, and later her name is identified with his in the register.

The obscurity which envelopes the early epoch of the history of printing is rendered more cloudy still by the precautions which the inventor and his partners took to conceal their proceedings. Their books were sold at the same high price as those executed by hand, and the rapidity with which he produced them gave rise to grave suspicions among the

authorities. It was ascribed to magic, and Mephistopheles, rather than either Faust or Gutenberg, got the credit of the invention.

Still greater uncertainty exists in regard to the steps by which Gutenberg arrived at his invention. It is believed that he first printed a little vocabulary called "Catholicon," and a "Donatus Minor," on fixed wooden blocks; that he afterwards employed movable wooden characters, and at last found out a way to cast these characters in metal, a process afterwards perfected by Schaeffer. But it will always be difficult, perhaps impossible, to determine exactly what belongs to Gutenberg, and what to others, in the labours of so many years at Strasbourg and Mayence; labours which at last brought the typographical art up to that point of perfection shown in the "Letters of Indulgence," and the "Bibles" which appeared in 1454. According to Didot, Gutenburg, in his work, probably traversed the following phases: 1. The engraving of movable letters, first in wood, then in lead, and the adjusting more or less regularly these letters for the impression. 2. The casting of the letters, clay, lead, or tin, by means of moulds in sand. 3. The retouching of these characters after the casting -sculpto fusi. 4. The engraving of the letters on soft steel, tempering it afterwards, and striking these letters in matrices of copper. 5. Moulds, of which the mechanism was probably at first similar to that the ancients employed in making medallions, and which were afterward perfected by Schaeffer. 6. The composition of a siccative ink, and the preparation of leather pads by which to extend the ink over the characters. 7. The press, chief of all, the embodiment of the whole process, of which it terminates the different operations. The imagination, vividly excited in seeing for the first time entire sheets written by a single stroke of the press, as by a miracle, recognizes in this Gutenberg a mighty magician; but let into the secret by the contemplation of all these tedious stages of preparation for the final result, the reason is tempted to pronounce him a practical mechanic. De Sulgelock the nobleman becomes Gutenberg the inventor, the age of Chivalry is transformed into the age of Industry.

The inscription at the end of the Catholicon of Janua, one of the most important of the works which he printed, is a sort of pious hymn in honour of the discovery of printing, and has often been cited in his praise. It commences by acts of grace, which Gutenberg, from a heart full of gratitude, renders to God and the Holy Trinity; then it declares that the execution of his book is due to the supreme direction of Him who, by a sign, renders eloquent the voices of His children, and who often reveals to the least among them that which He conceals from the most profound. "It was," adds the inscription, "in the year of the Incarnation, 1460, that this remarkable book appeared at Mayence, that celebrated city of Germany, on which the Divine clemency deigns to descend to make it shine among all the nations. It is not by the aid

of the pen, the style, or the calamus, that this book has been written, but by the admirable accord of stamp and matrice, and their proportion and module."

The following are the first books printed by Gutenberg, and consequently the first ever issued from the press.

- 1. A small vocabulary called "Catholicon," printed probably at Strasbourg.
- 2. One or many editions of the "Donatus Minor," printed at Strasbourg.
 - 3. The "Letters of Indulgence," 1454-1455.
- 4. The "Calendar" for 1457, printed in the type of the "Bible of Thirty-six Lines."
- 5. The "Appeal against the Turks," which appeared in 1454, and forms six leaves in quarto.
- 6. The "Bible of Thirty-six Lines," 3 vols. in folio, printed perhaps at Strasbourg.
 - 7. The "Psalter of Mayence."

CHRONOLOGY.

A.D.		1	Age	A.D.				A	lge
1400 Born at Maye	nce.			1449	Entered into partnership	p 1	with	1	
1424 At Strasburg			24		Johann Faust				49
1443 Returned to M	layence .		43	1455	Partnership dissolved .				55
				1468	Died at Mayence				68



COLUMBUS.

A.D. 1436-1506.

VOYAGES-DISCOVERY OF AMERICA.

Columbus was an Italian, born at Genoa about 1436. His father came of an ancient family of Plaisance, and was a wool-carder or weaver. Christopher, who felt no disposition for this peaceful occupation, embraced, at the age of fourteen, the more adventurous calling of a sailor, after having studied for some time, at the University of Pavia, "geography, cosmography, geometry, astronomy, and the nautical sciences." The details of the history of his youth, of his adventures at sea, and of his studies and projects, are rather meagre; but it is known that he sailed in all the Mediterranean regions, and probably in some latitudes of the Ocean.

In 1470 we find him at Lisbon, where he married the daughter of a skilful navigator, Palestrello, who had founded a colony in the Island of

Porto Santo, and whose manuscripts, instruments, and observations Columbus fell heir to. It appears that after his marriage Columbus resided some time at Porto Santo, and took part in some expeditions to the coasts of Guinea. In 1477 he made a voyage to the Northern Ocean, to verify the discoveries attributed to the Scandinavian navigators of the Middle Ages. It is certain that even then his vast project was shaping itself in his mind. His studies and voyages, the reading of the ancients, and meditations on the vague traditions of a great continent beyond the Pillars of Hercules, the conjectures of the Greeks on the shape of the earth, the diverse notions received from the voyage of Marco Polo, the remains of unknown vegetable matter thrown on the shores of Porto Santo, had all conduced to make him entertain the possibility of gaining the shores of Asia by navigating to the West. His one idea was to find a new route by which to arrive more speedily at the country of spices, gold, and elephants, that is, India or China. the idea developed, Columbus entered into correspondence with the geographer Toscanelli, of Florence, who, like himself, believed in a possible route to India toward the setting sun.

With plans matured, and prepared to defend his cherished scheme, he laid it before John II. of Portugal, after his own countrymen, the Genoese, had refused to aid him Taking advantage of his charts and detailed plans, John II. tried to rob Columbus of the glory of the project by privately despatching a fleet on the indicated route. But a tempest sent them back alarmed and disabled, and the scheme was declared chimerical and extravagant. Indignant at this treatment, the Genoese navigator turned in 1485 towards Spain, then engaged in war against the Moors. He gained a partial hearing, and then began for him that period of unsuccessful solicitation when, hanging about the court and camp of Ferdinand and Isabella, his hopes were sometimes raised to the point of seeming fulfilment, but often he became so discouraged as to seriously think of applying elsewhere for aid. He was obliged to defend his opinion of the rotundity of the earth and the possibility of making a voyage around it before the College of Salamanea, composed of the most learned professors of astronomy, geography, and mathematics, and the most eminent dignitaries of the Church. Despised, rebuffed, railed at, obliged to live by the sale of maps and charts which he made, Columbus never lost faith in the final triumph of his idea, though in 1490, after three years' discussion, the scheme was decided by the learned college to be impracticable.

Battling with a manly constancy against the prejudices of his contemporaries, he gained, some time afterwards, new protectors, who stood near the throne. Yet a fresh series of trials awaited him, and it was not till the taking of Granada, about eight years after his first petition, that a sudden inspiration of Isabella permitted him to realize his dream. At

the very threshold of the enterprise, however, the negotiations were nearly broken off by the business-like demands of Columbus, who insisted on a tenth of all profits, with the title and office of viceroy of all dominions discovered by him. This being at first refused, the obstinate Italian mounted his mule, and had well-nigh departed for France, when the Court thought better of it; he was recalled, and an arrangement effected. The following is a copy of the contract between Columbus and the Spanish sovereigns: "Columbus to be made admiral of the seas and countries he is about to discover; to hold this dignity during life, and it shall descend to his heirs. Columbus to be made vicerov of all the continents and islands. To have a share amounting to a tenth part of the profits of all merchandise, pearls, jewels, or other things that may be found, gained, bought, or exported from the countries. Columbus to be sole judge of all mercantile matters that may be occasions of dispute in said countries. To have the further right to contribute an eighth part of the expenses of all ships which traffic with the new countries, and in return to receive an eighth part of the profits. Santa Fé, Granada, April 17, 1492."

Columbus set out from Palos in August with three small vessels and one hundred and twenty men. He sailed boldly toward the West. The journal of this first voyage has been given in an abridged form by his friend Las-Casas, author of the "History of the Indies." It is a veritable marine epic, and gives a faithful picture of the bold expedition, the indomitable faith of the navigator, whom no delays or variation of the compass could affect, and of his energetic constancy and prudence in the midst of seamen a hundred times deceived by false appearances of approaching land, and who, undeceived, were on the point of mutiny.

Seventy days' sailing westward had been accomplished, and then the welcome land appeared in sight, being, not as Columbus supposed, the shores of India, but an island named by him San Salvador, and called by the natives Guanahani. Afterwards he sighted Cuba and Hayti. On the latter he left a few men in garrison, and returned to Europe, the ships laden with curiosities from this new world. He was received with universal enthusiasm. Ferdinand and Isabella confirmed to him the titles of admiral and viceroy, with the privileges he had had the foresight to demand before he set out.

In a second voyage, made in 1493, he discovered San Domingo, Guadaloupe, and Jamaica, explored Cuba, and commenced the colonization of these islands. Being obliged, as admiral, to settle some disputes among his Spanish colonists, the seeds of a violent hatred were sown which ripened during a third expedition made in 1498. During this last voyage he discovered and explored the coast of South America, near the Orinoco river. He increased the number of military posts, quelled a rising sedition, and sent back to Spain some of the malcontents.

They, by their calumnies, gave weight to the accusations already made against him for severity and incompetence. As Spain began to need him less, she commenced to regret having invested a man of obscure birth and a stranger with such great powers and brilliant privileges. The Court ordered an investigation, which was entrusted to Bobadilla, a violent and ambitious man, who, on arriving in the new world, without a hearing placed Columbus and his two brothers in chains, and sent them to Spain. Ferdinand and Isabella disapproved of this unworthy treatment of a man who had done so much for them, struck off the chains, and promised him his command. Bobadilla was recalled, but perished in a storm at sea. Instead now of again bestowing the command on Columbus, one Ovando was appointed interim-governor for two years, while Columbus had only the remembrance of the chains as a recompense for his services.

Through solicitation at Court, and the influence of friends, a fourth expedition was fitted out for him in 1502, but the viceroyalty was not restored, nor was he to land at San Domingo. This, his last voyage, was a long series of disasters. He explored Cuba anew, discovered Cape Honduras, but was nearly wrecked in a drealful tempest, and was obliged to lay by in a harbour of Jamaica to recruit. Suffering from privation and sickness, and obliged to be on the alert against mutinies and treachery among the sailors, denied all help by Ovando, it was nearly a year before he could set sail to return. In November, 1504, he dropped anchor in San Lucar. Isabella had died shortly before, and, without a friend at Court, he found himself coldly received by Ferdinand. Poor and sick, he lingered two years, vainly waiting for justice to be done him, and expired at Seville in May, 1506, ignorant to the last that he had discovered a new world to which one of his companions would afterwards give, not the name of Columbus, the discoverer, but his own.

CHRONOLOGY.

. D.	A	ge	A.D. Age	9
1136	Born at Genoa.	0	dinand and Isabella; set	
1460	First went to sea	24	sail, August; reached San	
1470	Settled in Lisbon; married .	34	Salvador, October 50	3
1474	Corresponded with Toscanelli.	38	1493 Embarked on second voyage	
477	Sailed beyond Iceland	41	from Cadiz	7
1184	Discussed project with Garcia		1496 Returned 60)
	Fernandez	48	1498 Embarked on third voyage . 62	2
1489	Served against the Moors at		1501 Brought home in chairs 65	5
	Bazı	53	1502 Embarked on fourth voyage. 60	3
1491	Unfavourable report of com-		1504 Returned 68	3
	mittee on his scheme)
1.100	Obtained counties of Day			



PALISSY.

A.D. 1510-1590.

INDUSTRIAL ART.

Bernard Palissy, the Huguenot potter and naturalist, was born, 1510, at La Capelle-Biron. His father was a tile-maker, or worker in clay. Palissy was apprenticed to a glass-stainer at Agen, whose art he soon learned, and, acquiring a knowledge of drawing, became expert in painting heads and portraits on glass. He also applied himself to learning surveying and the drawing of plans. When he had acquired some proficiency in these branches of industry, he set out to make the tour of France, as was the custom among artisans of that time, and between 1525 and 1530 he visited all the principal districts of France, extending his travels also to Flanders and the Low Countries, living by the products of his two trades of glass-painting and land-surveying. He seemed to have the natural genius of the observer and ruralist. Nothing which could furnish matter

for serious thought escaped his observation, and in after years his writings show the surprising extent and variety of information gathered during these years of travel.

In 1535 he settled permanently at Saintes, and four years later married. His trade of glass-painter gave him but a pittance. He was restless and constantly experimenting. A small cup of Italian majolica falling into his hands, he set himself to find out the secret of making glaze, enamelled ware being at that time unknown to French industry. If he could make such cups as this he thought he should obtain both wealth and fame. His means were too small at first to enable him to arrive at any result. In 1543 his resources were considerably augmented by his being appointed to survey the salt-marshes of Saintonge, and, this work finished, he began anew to prosecute his researches. After many trials he succeeded in producing crude white enamel, which, though not the supreme object of his search, gave him hope of obtaining the cherished result. The story of his struggles, his poverty, the contempt of friends and neighbours, the cries and upbraidings of wife and children, have been too often told at length to be more than mentioned. It is sufficient to know that sixteen years had elapsed since he first entertained the idea before the final triumph came, and he was able to produce in all their perfection of colour the works of art which had been ever present in his imagination. now made vases, statuettes, dishes, plates, and divers utensils, ornamented in relief, richly coloured, and highly enamelled, which he called rustic figulines.

Thus was invented the Palissy ware, those admirable pieces of faïence on which are grouped reptiles, fishes, shells, and all manner of rural objects, which in their fine modelling and grouping show Palissy's intimate acquaintance with nature, as well as the peculiar individuality of the self-taught sculptor. His works found a ready sale. The Duke of Montmorency became his patron, and ordered him to make decorations for his château at Ecouen. Other seigneurs followed the example, and good fortune now began to make up for the trials and struggles of former years.

It was at this time, 1559, that religious troubles appeared in France. About 1546 Palissy, with all his family, had embraced the new ideas of Luther and Calvin, and contributed much toward the foundation of a reformed church at Saintes, and it was not to be supposed that he could escape the rigours of persecution. He was denounced to the authorities, incarcerated at Bordeaux, and it required the intervention of Montmorency, aided by Catherine de Medici, to save his life. The ingenious inventor of rustic figulines must not become a sacrifice to religious contention: so a stratagem was resorted to that clemency might be shown without opposition to the edict. By the intercession of Catherine he was named inventor of rustic figulines to the king, and by this became only answerable

to the grand council. By means of these powerful friends he escaped the jurisdiction of the parliament at Bordeaux, and came to Paris soon after, being charged with the decoration of the royal gardens of the Tuileries, in which work he associated with him his two sons Nicolas and Mathurin.

During many years he lived at Paris, sheltered and protected by royalty, escaping the horrors of the Massacre of St. Bartholomew, and giving his leisure, not only to his artistic employments, but to the study of chemistry, geology, and natural history, for all of which he had a special genius. In 1575 the "Huguenot Potter" began a course of public lectures, to which he called all the learned doctors of the capital, to assemble and hear in three lessons the exposition of his theories on natural history; these discourses became so popular they were continued fifteen years. French science owes a debt to Palissy; he was the first in France to substitute for the vain explanations of the philosophers, positive facts and rigorous demonstrations. M. Hoefer, in his "Histoire de la Chimie," has remarked that Francis Bacon was still a child when Palissy was publicly teaching at Paris that to obtain the truth it is necessary to have recourse to experience. Palissy did for chemistry what Bacon did for science in general, pointed out its true method. Many of Palissy's observations are beyond the teaching of his time. His classification of salts is still regarded as exact, and he was the first to establish a rational theory of crystallization.

The hate of the theologians, excited no doubt by his scientific opinions, revealed itself all at once in the midst of the comfort which he was enjoying. In 1588 the royal family could shelter him no longer; he was arrested as being a Protestant, and sent to the Bastille. So strong was popular feeling, that the king himself, though he visited him in person, was not powerful enough to effect his release, and he died in his confinement, 1590.

Palissy is an original genius; like Rabelais, Cellini, and Leonardo da Vinci, a characteristic product of the Renaissance. His life, aims, and opinions are well worth the study of those who are seeking for new ideas. Like Franklin, he is the highest possible example for the selfmade man, and, like him, a money success was but the stepping-stone to a higher life.

It is as a practical man, however, and not as a man of science, that the world is indebted to Palissy. A few words on his writings from the admirable little work of Professor Morley may here be subjoined: "The book which Palissy, after his rescue from prison, busied himself in seeing through the press, contained treatises on four subjects, namely, agriculture, natural history, the plan of a delectable garden, and the plan of a fortified town which might serve as a refuge in those times of trouble. The book into which they are collected is thus entitled, 'A Trustworthy Receipt,

by which all the men of France may learn how to multiply and augment their Treasures. *Item.*—Those who have acquired no knowledge of letters may learn a philosophy necessary to all dwellers in the earth. *Item.*—In this book is contained the design of a garden, as delightful and useful in invention as ever has been seen. *Item.*—The design and arrangement of a fortified town, the most impregnable of which men have ever heard."

In a book published fourteen years later are embodied the results of his matured experience, and the whole sum of his acquirements as a naturalist who had pushed forward far beyond the knowledge of his time. "In this book," says Morley, "we find Bernard writing in the simplicity of an unlettered man, whom God has gifted with a quick and subtle genius, who, with the perfect mind of a philosopher, and fearlessness of manly thought and speech, is naïve and single-hearted as a little child."

"In an epistle to his patron, Montmorency, he urges upon him the duty of instructing his unlettered labourers, 'that they may be made carefully to study in natural philosophy according to my counsel. Especially let that secret and precept which concerns manure-heaps, that I have put into this book, be divulged and made manifest to them; and that also so long as may be needed, till they hold it in as high esteem as the thing merits. Since no man could estimate how great the profit in France would be if on this subject they would accept my counsel.' He then mentions a kind of earth called marl, used as manure in certain parts of Gascony and other parts of France, which subject he promises to investigate and treat of in a third book, 'if I see that my writings are not despised, and that they are put in execution.'

"Finally, Palissy commends to all his readers agriculture as 'a just toil, and worthy to be prized and honoured,' and again urges his desire that 'the simple may be instructed by the wise, in order that we may none of us be rebuked at the last day for having hidden talents in the earth.' With this last thought, couched in the most solemn form of adjuration, Palissy ends as he began his series of prefatory letters."

CHRONOLOGY.

A.D		Age	A.D.	Age
510	Born at La Capelle-Biron.		1562 Imprisoned at Bordeaux for	0
	Set out on his travels		his religion	52
1535	Settled at Saintes	25	1575 Began course of public lectures	
1538	First experiments on enamel.	28	in Paris	65
1543	Appointed to survey salt-		1580 "Discourse on Waters and	
	marshes of Saintonge	33	Fountains"	70
	Embraced Protestant religion		1588 Imprisoned in the Bastille .	78
	Result obtained			



FRANKLIN.

A.D. 1706-1790.

ELECTRICITY.

As in the world generally, so among the acknowledged great, there are recognized grades. Even in the "Hundred Greatest Men" there is a hierarchy. Instinctively in the highest rank we put those who see more than other men—Aristotle, Shakespeare, Cæsar, Frederick. To the second rank belong men of narrower minds, who, having a strong bent in one direction, achieve great eminence as by inspiration, unconscious workers—Francis of Assisi, Cromwell, Luther. In the third rank are the original geniuses, who, struggling against too great odds, have left behind them many suggestions, but no perfect work: such are Palissy, Diderot, Burns. Finally, there are men not great in themselves but only so from the position they occupy—a statue tall because of its pedestal: such are Plutarch, Gutenberg, &c.

While England has produced several men of the first rank -Bacon in

Philosophy, Shakespeare in Poetry, Newton in Science—America has produced one. Franklin is for Industry—that is, for Invention, Discovery, and Philanthropy—what these are for their special departments.

Franklin was born in Boston, Massachusetts, in 1706, where his father, a Nonconformist from Northamptonshire, had settled twenty-five years before. He was the youngest of ten children, and at an early age showed such a fondness for books that it was determined to educate him for the ministry. After two years at school, however, he was obliged to leave and assist his father, who with his trade of dyer combined that of tallow-chandler and soap-boiler. Benjamin, though disliking this kind of occupation, worked at it two years, and in his twelfth year thought himself decidedly fortunate in being apprenticed to his brother, a printer, a business which promised to afford better opportunities to get at books, his one special desire. Among all the books he had read, voyages and history charmed him most; but he tells us in his autobiography that the two works which exercised the greatest influence on his career were the "Lives of Plutarch" and the "Essay on Projects" by Defoe, the author of "Robinson Crusoe," read about this time.

In the business of printing he soon became an expert, read with avidity all the books that came within his reach, and tried his hand at verse-making. But falling in with some old volumes of the "Spectator," he became more interested in forming his prose style on the model of its articles, and, as he says, was thus prevented from becoming a bad poet. At the age of sixteen he had read Locke "On the Understanding," the "Art of Thinking," of Port-Royal, and Xenophon's "Memoirs of Socrates." Every new faculty which in turn developed itself in him was almost always carried to exaggeration from having no guide to direct its application. The study of Metaphysics made him sceptical, and to defend his new principles he adopted the Socratic method of reasoning, in which he became an adept.

About this time his relations with his brother became unpleasant. He was evidently too smart. Original articles written by him were accepted for publication in his brother's paper, the editor not knowing their source. The brother became jealous, and although his indentures were not out, Franklin determined to leave him and start in the world for himself. He sold some of his books and quietly left Boston in October, 1723, being then seventeen years old. He landed in Philadelphia, unknown and friendless, but soon found employment with a printer, a Jew, to whom he rendered himself invaluable by his skill, energy, and fruitful resources for obtaining orders. He received flattering attentions from some of the prominent citizens there, and attracted the attention of Keith, the governor of the province, who greatly patronized him, and proposed to set him up in business for himself. Franklin embarked for London to buy the necessary type. On arriving there he found he had relied too confidently on promises which could not be

fulfilled, and must depend on his own exertions to gain even his daily bread. He found employment at a famous printing-house—Palmers, and afterwards at another, staying in London eighteen months. He made friends among his fellow-workmen, set them an excellent example of temperance and good work, and astonished them by his feats of swimming. He wrote at this time some essays, a "Dissertation on Liberty and Necessity, Pleasure and Pain," which were printed and circulated.

He returned in 1726 to America, and after a few months established himself in the printing business with a man named Meredith, who after a short time retired, leaving Franklin sole proprietor. Now began in earnest the business of life; let any young man who wishes a Guide to Success read Franklin's autobiography from this point: of his patience, his industry, his virtue, his shrewdness—how he wheeled home his own paper—how he started the Gazette and "Poor Richard's Almanac," distanced all competitors, got the State printing, and made money. Read next how he won the confidence of the citizens and turned it to their own advantage; how he organized the first police force and fire company in the colonies, and took those steps which resulted in the foundation of the University of Pennsylvania and the American Philosophical Society; "in fact, he furnished the impulse to nearly every measure or project which contemplated the welfare and prosperity of the city in which he lived."

At this time, during all these miscellaneous avocations, his own development went steadily on. A moral philosopher he had always been; he now became a natural philosopher. Fire in all its forms had always had a special attraction for him: he made many experiments and several inventions, and at last the great discovery with which his name is ever associated—the identity of lightning and electricity. "Since the introduction of the art of printing," says Bigelow, "it would be difficult to name any discovery that has exerted a more important influence on the industries and habits of mankind." The name of Franklin is identified with electricity, as the name of Watt is with that of steam, and this is his highest achievement.

In 1754, in view of a war between France and England, Franklin was foremost in submitting plans for the defence of the colonists, which not being accepted by the mother-country, he was appointed to carry a petition from the colonies to England. This was the beginning of his diplomatic career, and "the success of this foreign mission," we are told, "was both substantial and satisfactory." He resided in and about London five years, upholding the interests of the American colonies, and making many friends in and outside of political circles. Hume, Robertson, and Adam Smith were the friends most prized by him.

In 1764 Franklin was again sent to England to remonstrate against the grievances imposed by the mother-country, and he did not return till the struggle had begun, and he was satisfied further diplomacy could avail nothing. The very morning of his arrival in Philadelphia he was

elected delegate to the Continental Congress; later was made postmastergeneral and commissioner to Canada. He was one of the five who drew up the "Declaration of Independence," and in 1776 was unanimously chosen one of the three to represent the cause of the colonies at the court of Louis XVI., and solicit aid from France.

He was now seventy years of age, one of the most noted men in the world, a member of all the learned societies of Europe, and an accomplished statesman. "To these advantages he added a political purpose—the dismemberment of the British empire—which was entirely congenial to every citizen of France." The story of his mission to France as told by himself is singularly interesting. He at once became the object of the most intense interest, which during a stay of eight years seemed ever on the increase. While in Paris he wrote much for the press, and "kept the world constantly talking of him, and wondering at the inexhaustible variety and unconventional novelty of his resources."

In 1785 the definite treaty of peace was signed, and Franklin solicited permission to return home, which was granted. His reception in Philadelphia, where sixty-two years before he had landed a "penniless, runaway apprentice of seventeen," almost exceeded the bounds of enthusiasm. The appreciation of a grateful people was still further expressed when a month later he was elected chairman of the municipal council, and in 1787 member of the convention which framed the constitution for the new Republic, and to the joint efforts of Franklin and Washington must the final adoption of the constitution framed by this convention be ascribed. After being three years President of Pennsylvania, he retired from active life, using his pen, however, as vigorously as ever. In 1790, in the eighty-fifth year of his age, he died at Philadelphia.

"America," says Bigelow, "owes much to him for his services in various public capacities; the world owes much to the fruits of his pen; but his greatest contribution to the welfare of mankind, probably, was what he did by his example and life to dignify manual labour."

CHRONOLOGY.

AD. Age	A.D. Age
1706 Born at Boston.	1753 Postmaster-general 47
1717 Apprenticed to his brother . 11	1757-62 Envoy to England 51-56
1723 Went to Philadelphia 17	1764-75 ,, F.R.S. 58-69
1725 In England 19	1776 Signed Declaration of Inde-
1730 Married in Philadelphia 24	pendence; ambassador to
1732-57 "Poor Richard's Alman-	France till 1785 70-79
ack" 26–51	1778 Concluded treaty of alliance
1744 Founded University of Penn-	with France 72
sylvania 38	1785 Governor of Pennsylvania 79
1746 Began investigations in elec-	1787 Delegate to convention for
tricity 40	revising Articles of Union . 81
1750 Deputy to General Assembly 44	1790 Died at Philadelphia 84
1752 Discovered identity of light-	
ning and electricity 46	



MONTGOLFIER.

A.D. 1740-1810.

AEROSTATION.

Shall we ever fly? Is man or the bird the superior creature? The question is not as easy as it seems; like most others, it has two sides. The man who has done most to turn the scale practically in favour of humanity is the inventor of the balloon. We cannot say that he has wholly succeeded; probably the principle is wrong. A flying vehicle to traverse the air must not be a frail globe at the mercy of the winds, but a strong machine capable of overcoming them; the air yet awaits its Stephenson. Nevertheless, the first stage is passed; the art of aerostation is founded, and to the founder we must erect a statue.

Joseph Montgolfier was born at Vidalon-les-Annonay, where his father owned a paper manufactory. He was placed with his two brothers at school at Tournon, but could not apply himself, and ran away at the age

of thirteen, determined to gain the shores of the Mediterranean. He was brought back and placed once more under the teachers, who laboured hard to overcome his dislike for study, which increased, however, when a theological course was proposed to him; but he was "transported with joy" when a treatise on arithmetic was put into his hands; yet still incapable of subjecting his mind to the methodical deductions of the book, he began applying certain intellectual experiments, quite original, to combine particular formulas of his own, by the aid of which he managed not only to work out the sums, but to resolve even the problems of the higher mathematics. Intellectual experiments of this kind were his delight throughout his life.

Greatly longing for independence, he quitted his native town for St. Étienne, in Forez, where he lived, in obscurity, by the product of fishing and the sale of chemicals, Prussian blue, and various salts which he knew how to compound. The desire to become acquainted with the savants of Paris conducted him to that city, and later we find him seeking their acquaintance at the Café Procope.

His father recalled him, however, to take part in the direction of the manufactory; but the youth was not satisfied with the old ways, and wanted to try to perfect the paper-making process by experiment. As his father objected, he associated with him one of his brothers, and formed two new establishments at Voiron and Beaujeu. Here he could exercise his inventive faculties in all freedom; but his hazardous and expensive experiments soon ruined his fortune, though he had succeeded in simplifying the manufacture of ordinary paper, and improved that of coloured paper. He had also invented a method of stereotyping, and imagined a machine for rarefying the air in the moulds used in the manufactory, when his discoveries in aerostatics overshadowed everything else, and rendered his name European. Various anecdotes are told of the origin of the discovery. According to one, a garment warming before the fire and becoming inflated gave him the idea; another account gives the honour of the discovery to Étienne, a younger brother. While Joseph, the unruly scholar and hare-brained inventor, had been going the road of too many inventors, Étienne had distinguished himself in Latin and mathematics, had been a pupil of Soufflot, and turning also to Industry had made his own manufactory flourish, and had become known as a clever man. turning from Montpellier, where he had bought the book of Priestlev's. "On the Different Kinds of Air," he entered his house exclaiming, "Now we can sail in the air." Others say that the grand idea came to him while watching the heated air ascending the chimney; while still another gives it again to Joseph, who, being an accidental witness to a siege, thought of a passage through the air as a possible entrance to the besieged place.

It is very probable that after reading Priestley, one of the brothers was

struck with the idea of making something lighter than air to navigate it. The secret was shared between them; all the calculations were made in common. After many experiments of combustibles, hot air, inflammable gas, and "fluide électrique," being suggested, and after many trials, at first with paper globes and then with silk ones, they made at the Célestins, near Annouay, the first public trial with a paper globe, forty feet in diameter, filled with hot air. This exhibition took place in June, 1783. Étienne was then engaged by his brother to take to Paris the discovery. the glory of which was to be shared in common. The experiment of Annonay was repeated before the Court at Versailles in the same year, with a globe constructed on the same model. Some animals were placed in a basket attached to the balloon, and as they experienced nothing unpleasant in the ascension, it was thought that man himself could now take possession of the atmosphere without running any danger. Pilâtre de Rozier and the Marquis d'Arlandes were the first who trusted themselves to an aerial voyage, and in seventeen minutes found they had accomplished a distance of 21,000 feet.

The year following Joseph undertook personally to conduct an aerial excursion in a monster balloon over 100 feet in diameter. Such was the enthusiasm of those who wished to accompany him, that they came nearly to upholding their pretensions by force of arms. The fortunate ones mounted in the frail bark, called after its inventor a Montgolfière, "with the greatest courage," and the voyage was successfully accomplished.

The inventors, after having tried all the substances that chemistry indicated as specifically lighter than atmospheric air, after having tried water reduced to a state of vapour, hydrogen, and "fluide électrique," (?) succeeded best in inflating their balloon by means of burning straw and chopped wool as the most economical and easiest renewed. In their manner of operating, the warm air was introduced by means of a furnace placed underneath the orifice of the balloon. But from this arose two inconveniences: (1) that the fire might possibly reach the sides of the balloon; (2) it was impossible to measure exactly the amount of heat necessary to mount it, and the diminution necessary to descend without dangerous results. M. Charles, who had tried other ways than those employed by the Montgolfiers, used hydrogen gas, of which the density is only a fifth of common air, and which gives a sustained and independent ascending force. This same gas was afterwards adopted by Joseph Montgolfier, and then it only remained to find an impervious envelope; silk, varnished with india-rubber dissolved in turpentine. seemed the best adapted, and on these principles a balloon was made, which, starting from the Tuileries, made a voyage of forty miles from the capital.

At this time the enthusiasm with which this wonderful invention had

been received somewhat abated, but the Academy of Sciences at Paris recognized its importance, and placed Joseph and Étienne on its list of correspondents, while the Government remitted to them the sum of 40,000 francs to continue their experiments. Étienne was received at Court, and decorated with the ribbon of St. Michel, the family received letters of nobility, and Joseph a pension of a thousand francs.

During the Revolution the two brothers lived in retirement, occupied in working out other mechanical ideas, and introducing further improvements in the manufacture of paper. To Joseph Montgolfier is due also the invention of the calorimeter and the principle of the hydraulic press, afterwards made practical by Bramah.

The services which the balloon of Montgolfier rendered to the French army in the field of Fleury did not attract the notice of Government; but later, when Bonaparte, as First Consul, was distributing the Cross of the Legion of Honour to the citizens who had contributed to the progress of national industry, Joseph received the decoration. Later he was named Administrator of the Arts and Trades, and he is identified with the founding of the "Society for the Encouragement of Industry." Of his writings, three are important: "Discours sur l'Aérostat," 1783; "Mémoire sur la Machine Aérostatique," 1784; "Voyageurs Aériens," 1784.

He died in June, 1810, at Balaruc, where he had gone for his health



HOWARD.

a.d. 1726-1790.

PHILANTHROPY.

John Howard, the philanthropist, was born at Enfield or Hackney, London. His father was an upholsterer and carpet warehouseman, but had retired from active business. The boy Howard was a quiet, original kind of lad, endowed with a weak constitution, "not bright, not vigorous, not ambitious" He was brought up in the country, near Woburn in Bedfordshire, learned a little Latin, and something of natural philosophy and medicine, but devoted most of his efforts towards acquiring a knowledge of the modern languages. At sixteen he was apprenticed to a grocer in London, but the employment was distasteful to him, and his father dying soon after, he bought up his indentures, and set out to make the tour of France and Italy.

After an absence of two years, he returned, "speaking French like a

native." He began studying medicine and meteorology, and lodged at Stoke Newington with an invalid lady, who, when he fell ill, so carefully nursed him, that on his recovery he married her, "believing that no other return for her motherly conduct was sufficient." After her death, in 1755, Howard set out to visit Lisbon, believing he could alleviate the misery resulting from the recent earthquake at that place. The frigate in which he had taken a berth was captured by the French, and he was detained, together with others, as prisoner of war. "Howard's heart almost broke with indignation at the treatment of his gallant and unhappy countrymen;" and on his release he hastened to lay the affair before the Government, and was instrumental in getting an immediate exchange of prisoners.

He continued his scientific pursuits; was elected a Fellow of the Royal Society in 1756, and contributed three papers. Two years later he married again, and settled at Cardington, near Bedford, where he found a large field for his philanthropic labours. He built model cottages for his labourers, and established free schools; and, at the end of ten years' labour, the unwholesome, wretched village had become pretty. clean, and prosperous. His wife died in 1765, and he went abroad again: visiting Holland, Switzerland, and Italy. Coming home in 1773, he was elected to the office of Sheriff of Bedford. As soon as he entered on his duties, already aware that abuses existed, he commenced making searching inquiries into the English prison system, and found things everywhere so badly managed, that his "humane heart was astonished. his sense of right violated." He extended his investigations to neighbouring counties, and gradually all over Britain. "He discovered so many abuses in the management, which imagination had never conceived. and so much suffering, of which the general public knew nothing, and of which the law took no account, that he determined to devote to the examination of these wrongs, and the reform of these abuses, whatever time and money might be needful. The task cost him a fortune and the remaining years of his life."

His inquiries began to attract attention. He laid before the House of Commons a brief survey of the prison system, and being unsuccessful in obtaining a seat in Parliament, went abroad in 1775, gathering statistics in relation to the prisons of France, Austria, and the Netherlands. After returning to London, he published "The State of Prisons in England and Wales," which created a great sensation; the public interest was aroused; something must be done for reform. Howard was at hand: his information was placed at the service of the House of Commons, and, later, a bill was passed for building two penitentiaries in accordance with his plans. Howard had a new and valuable idea. Hitherto criminals had sat with folded hands; now they should be made to labour. Prison labour dates from Howard. Once more the inde-

fatigable philanthropist went abroad, to glean additional information on the subject; this time visiting Norway, Sweden, Denmark, Russia, Poland, Spain, and Portugal.

He was now fifty-seven years old, and had travelled in his mission about 40,000 miles. In the spring of 1784 he retired to his estates at Cardington, and lived quietly and simply for about two years, occupied with private schemes of benevolence, and study. At the end of 1785 he determined to undertake a new mission of philanthropy, and study the causes and cure of the plague. He wished to begin by inspecting the lazarettos of Marseilles, but the French Government, annoyed at his revelations in regard to the Bastille, refused him a passport through France. By the help of a clever disguise, however, he accomplished his object, and visited all the principal lazarettos along the shores of the Mediterranean, and passed on to Turkey; visited Constantinople, and arrived at Smyrna during the plague, and was afforded an excellent opportunity of studying it.

At the end of twelve months his documents were quite complete, and he ready to return home, when he was seized with the idea that his knowledge would be of more value if it were the result of experience, instead of being acquired from others; and he determined to witness and study for himself the confinement in the famous lazaretto of Venice. Deliberately searching out at Smyrna a foul ship, he secured a berth, and sailed for Venice. On the sixtieth day of the voyage he arrived. and was transferred to the lazaretto, where his health suffered severely, but he was buoved up by the thought of the precious information he was gaining for others. He reached England, in February, 1787, and took advantage of his leisure to revisit all the prisons of the three kingdoms, which he found much improved. This year he also published "The Lazarettos of Europe;" and in a postscript he informed the public of his intention to study the subject yet more. "To my country," he said, "I commit the result of my past labours. It is my intention again to quit it for the purpose of revisiting Russia, Turkey, and some other countries, and extending my tour into the East. I am not insensible of the dangers that must attend such a journey. Should it please God to cut off my life in the prosecution of this design, let not my conduct be imputed to rashness or enthusiasm, but to the serious conviction that I am pursuing the path of duty."

Starting from London, he went to Riga, then visited St. Petersburg and Moscow, intending to go through Vienna to Constantinople; but the war between Russia and Turkey prevented him: and in visiting the different centres of the war the question of the plague was even laid aside. Journeying down to the coasts of the Black Sea, he had reached Kherson, at the mouth of the Dnieper, when he caught the camp-fever, and died in June, 1790. He was buried on the road to St. Nicolas,

a short distance from Kherson, and a monument has been erected to him in St. Paul's Cathedral.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1726	Born in London.		1774 Gave evidence before House	0
1742	Apprenticed to a grocer	16	of Commons	48
1755	Set out for Lisbon	. 29	1775 Visited prisons on the Con-	
1756	Elected member of Royal		tinent	49
	Society	30	1777 "State of Prisons in England	
1758	Settled at Cardington	32	and Wales"	51
1765	Visited Holland, Switzerland,		1785 Visited Constantinople and	
	and Italy		Smyrna	59
1773	Elected Sheriff of Bedford	47	1787 "Lazarettos of Europe"	61
1773 -	-75 Investigated the state of	•	1790 Died in the Crimea	64
	English prisons 4	7-49		



ARKWRIGHT.

A.D. 1732-1792.

MACHINERY—COTTON MANUFACTURE.

The extraordinary individual to whom we are indebted for the great and signal invention of the Spinning Frame was a native of Preston in Lancashire. He was the youngest of thirteen children, and was bred to the trade of a barber. But the res angusta domi could not repress the native vigour of his mind, or extinguish the desire he felt to emerge from his low situation.

In 1760 he established himself at Bolton-le-Moors, and having become possessed of a chemical process for dyeing human hair, which in that day, when wigs were universal, was of considerable value, he travelled about collecting hair, and disposing of it again when dyed. It is unfortunate that very little is known of the steps by which he was led to those inventions that raised him to affluence, and have immortalized his

name. Residing in a district where a considerable manufacture of linen goods and of linen and cotton mixed was carried on, he had ample opportunities of becoming acquainted with the various processes that were then in use; and being endowed with a most original and inventive genius, and having sagacity to perceive what was likely to prove the most advantageous pursuit in which he could embark, his attention was naturally drawn to the employment of the method of spinning practised in his neighbourhood.

He stated that he accidentally derived the first hint of his great invention from seeing a red-hot iron bar elongated by being made to pass between rollers. Between this operation and that of elongating a thread as is now practised in spinning, there is no mechanical analogy; yet this hint, being pursued, produced an invention which, in its consequences, has been a source of individual and national wealth unparalleled in the annals of the world.

The precise era of the discovery is not known, but it is most probable that the felicitous idea of spinning by rollers had occurred to his mind as early as the period when Hargraves was engaged in the invention of the spinning jenny. Not being himself a practical mechanic, Arkwright employed John Kay, a watchmaker at Warrington, to assist him in the preparation of the parts of his machine. His inventions being at last brought into a pretty advanced state, Arkwright, accompanied by Kay, and a Mr. Smalley of Preston, removed to Nottingham (1768) in order to avoid the attacks of the same lawless rabble that had driven Hargrayes out of Lancashire. Here his operations were at first greatly fettered by a want of capital, but Mr. Strutt, of Derby, a gentleman largely engaged in the stocking manufacture, having seen Arkwright's inventions, and satisfied himself of their extraordinary value, immediately entered, conjointly with his partner, Mr. Need, into partnership with him. Arkwright then erected his first mill, which was driven by horses, at Nottingham, and took out a patent for spinning by rollers in 1769. As, however, the mode of working the machinery by horse-power was found too expensive, he built a second factory on a much larger scale at Cromford in Derbyshire in 1771, the machinery of which was turned by a water-mill, after the manner of the famous silk mill erected by Sir Thomas Lombe.

Soon after the erection of this mill Arkwright made many improvements in the mode of preparing the cotton for spinning, and invented a variety of ingenious machines for effecting this purpose in the most correct and expeditious manner, for all of which he obtained a patent in 1775, and thus completed a series of machines so various and complicated, yet so admirably combined and well adapted to produce the intended effect, as to excite the admiration of every person capable of appreciating the difficulties of the undertaking. The vast importance of

the discoveries for which Arkwright had taken out patents became very speedily known, and it is not surprising that every effort should have been made in the courts of law to have them set aside, and Arkwright deprived of the profit and honour to be derived from them. Eventually his patent was nullified in 1781. It would seem, however, that there are no good grounds for the statement made in the Court of King's Bench, and afterwards repeated by Mr. Guest in his "History of the Cotton Manufacture," which ascribes the invention of spinning by rollers to a man named Highs or Hayes, from whom Arkwright is said to have learnt it.

On their first introduction Arkwright's machines were regarded by the lower classes as even more adverse to their interest than those of Hargraves, and reiterated attacks were made on the factories built for them. But however extraordinary it may appear, it was amongst the manufacturers that the greatest animosity existed against Sir Richard Arkwright; and it required all that prudence and sagacity for which he was so remarkable to enable him to triumph over the powerful combination that was formed against him. The disgraceful spirit of animosity which must, if it had proved successful, have proved as injurious to the interests of the manufacturers as to those of Sir Richard Arkwright, did not content itself with actions in the courts of law, but displayed itself in a still more striking and unjustifiable manner. It is a fact that a large factory erected by Sir Richard at Birkacre, near Chorley, in Lancashire, was destroyed by a mob collected from the adjacent country in the presence of a powerful body of police and military. without any one of the civil authorities requiring them to interfere to prevent so scandalous an outrage. Fortunately, not for himself only, but for his country and the world, every corner of which is benefited by his inventions, Sir Richard Arkwright triumphed over all opposition. The same ingenuity, skill, and good sense which had originally enabled him to invent his machine and get it introduced, likewise enabled him to overcome the various combinations with which he had subsequently to contend. Notwithstanding the nullification of his patent. Arkwright continued his prosperous career. Wealth flowed upon him with a full stream from his judiciously managed concerns. For several years he fixed the price of cotton twist, all other spinners conforming to his prices. In 1786 he was nominated High Sheriff of Derbyshire, and having presented an address of congratulation from that county to the King on his escape from the attempt of Margaret Nicholson on his Majesty's life, Arkwright received the honour of knighthood.

When it is considered that for many years he was afflicted with a violent asthma, which was always extremely oppressive, and sometimes threatened immediately to terminate his existence, his great activity and exertion must excite astonishment. For some time previous to his death

he was rendered incapable of continuing his usual pursuits by a complication of maladies which at last deprived him of life at the Rock House, Cromford, on the 3rd of August, 1792.

No man ever better deserved his good fortune, or has a stronger claim on the gratitude of posterity than Sir Richard Arkwright. His inventions have opened a new and boundless field of employment; and while they have conferred infinitely more real benefit on his native country than she could have derived from the absolute dominion of Mexico and Peru, they have been universally productive of wealth and enjoyments.

CHRONOLOGY.

A.D.		Age		ge
	Born at Preston.		1771 Mill at Cromford built	39
1760	Barber at Bolton Willows	28	1775 Obtained second patent	43
1767	Constructed model of spinning		1785 Patent invalidated	53
	machine	35	1786 Made High Sheriff of Derby-	
1769	Obtained patent; erected mill		shire and knighted	54
	at Nottingham	37	1792 Died at Cromford	60



JAMES WATT.

а.в. 1736-1819.

STEAM.

James Watt was born at Greenock, on the Clyde, in Scotland, on the 19th of January, 1736. His parents were of the middle class, honest people with a character for probity which they had inherited from their ancestors. His grandfather was a teacher of mathematics in the village of Cartsdyke, now part of Greenock, and dignified himself with the title of "Professor." His son James Watt, the father of the engineer, settled at Greenock as a carpenter and builder, and held office as town treasurer, and as bailie, or magistrate. Agnes Muirhead, the bailie's wife, and the mother of James Watt, was long remembered in the place as an intelligent woman bountifully gifted with graces of person, as well as of mind and heart. Young Watt had for his first instructors his father and his mother, and in consequence of his fragile constitution his parents did not

send him to the town school at a very early age. His very sports proved lessons to him. His mother, to amuse him, encouraged him to draw with a pencil upon paper, or with chalk upon the floor, and he was soon supplied with a few tools from the carpenter's shop, which he soon learnt to handle with considerable expertness. The mechanical dexterity he acquired was the foundation upon which he built the speculations to which he owes his glory, nor without this mechanical training is there the least likelihood that he would have become the improver, and almost the creator of the steam-engine.

Several remarkable instances of precocity are related of Watt. On one occasion, when he was bending over a marble hearth, with a piece of chalk in his hand, a friend of his father said: "You ought to send that boy to a public school, and not allow him to trifle away his time at home." "Look how the boy is occupied," replied the father, "before you condemn him." Though only six years of age he was "trying to solve a problem in geometry." A still more wonderful story is told of the idle James watching the steam escaping from the tea-kettle. Let these pass for what they are worth; Watt's tea-kettle may be placed along with the little hatchet of George Washington.

His early years were passed at Greenock, but from the age of fourteen he was often in Glasgow with his uncle Mr. Muirhead, and read and studied much on chemistry and anatomy. Having finished his education at the grammar school of his native town, he received no further instruction. As with all distinguished men, his extensive afteracquirements in science and literature were entirely the result of his own self-culture.

In his nineteenth year he came to London to place himself under a mathematical instrument maker, and after acquiring the knowledge of the profession which a year's instruction could afford him, he returned to Glasgow in 1757 with the intention of carrying on his business there. But he had not acquired the privileges of a burgess, and the Incorporation of Trades prohibited him from establishing a shop within the limits of the burgh. The University of Glasgow thus became the sanctuary of Watt, and the academical authorities, having found for him a shop within its walls, employed him in fitting up the instruments in the Macfarlane Observatory. In this hallowed retreat the exile from the burgh was patronized by Adam Smith, Joseph Black, Robert Simson, and John Robison, whose names are immortal in the scientific annals of Scotland. By his friend Robison the attention of Watt was first directed to the subject of the steam-engine. The College at Glasgow possessed a model of one of Newcomen's engines. Watt was much struck with the contrivance, but he soon perceived defects in it which prevented it from becoming more generally useful. From that time he devoted himself to the improvement of this machine, particularly with regard to the saving of heat in

the production and condensation of steam. At last his efforts were crowned with success, and he obtained a patent for his invention in 1769. Previously to this he had been joined by Dr. Roebuck, a gentleman of science and property, but their means were not adequate to their object. In these circumstances Mr. Boulton, becoming acquainted with Watt, made him an offer of partnership, which was accepted, Dr. Roebuck being reimbursed for what he had expended. Watt now removed to Scho, near Birmingham, where he was employed in the management of what is still one of the principal establishments in England for the construction of steam-engines. He became a Fellow of the Royal Societies of Edinburgh and London; a member of the Institute of France; and a Doctor of Laws of the University of Glasgow.

This truly great man may justly be placed at the head of those philosophers who have improved the condition of mankind by the application of science to the practical purposes of life. So great was the active power of his mind that he not only embraced the whole compass of science, but was deeply learned in many departments of literature. His manners were marked with the simplicity which generally characterizes exalted merit, and were perfectly free from parade and affectation; and though he could not be unconscious of the eminent rank he held among men of science, yet his character was not debased by the slightest taint of vanity or pride.

He retired from business many years before his death, but his mind continued to be actively employed on scientific improvements. Having at length attained the age of eighty-three, his life was terminated by an easy and tranquil death, on the 25th of August, 1819, at his house at Heathfield, near Birmingham. His statue in marble, the masterpiece of Chantrey, is among the monuments which adorn the stately Abbey of Westminster.

The work done by Gutenburg and Columbus was the foundation of the great industrial impetus of the Renaissance. The work done by Franklin, and Arkwright, and Stephenson forms the foundation of the still greater industrial impetus of our time. It is this last movement which is the life of England, has created America, has revived France, Belgium, and Italy, and may yet revive Spain and Greece.

CHRONOLOGY.

A.D.	A	ge ,	A.D. A	ge
1736	Born at Greenock.		1785 F.R.S	49
1755	Came to London	19	1787 Corresponding member of	
1757	Settled at Glasgow	21	Batavian Society	51
1758	Began experiments on steam.	22	1800 Retired from business	64
1769	Obtained patent for steam-		1806 LL.D. at Glasgow	70
	engine	33	1808 Correspondent of French In-	
	Partner of Boulton at Soho		stitute	72
	Works	38	1814 Foreign Associate of Sciences.	78
1775	Patent extended	39	1819 Died at Heathfield	
1701	FDCF	18		



STEPHENSON.

A.D. 1781-1848.

RAILWAYS.

This self-taught genius was born of the most humble parentage, in a solitary cottage on the Tyne, between Wylam and Closehouse, Northumberland, about eight miles west of Newcastle. The wages earned by his father, who worked in a colliery, were barely sufficient, even with the most rigid economy, for the sustenance of the household, and consequently none of the children were sent to school. George began life as a cowboy, at twopence a day, but soon exchanged a pastoral for an agricultural sphere, doubling his wages by undertaking to hoe turnips. Then he was taken on at the colliery as a "corfbitter," or "picker," to clear the coal of stones, bats, and dross. His wages were advanced to sixpence a day, and to eightpence when he was set to draw the gin-horse. Great was his exultation when, at about fourteen years of age, he was appointed

fireman at a shilling a day. From this point his fortunes took him from one pit to another, and procured him rising wages with his rising stature. At Throckley Bridge, when advanced to twelve shillings a week, he joyfully exclaimed, "I am now a made man for life!"

At seventeen he became an engineman or plugman. He soon studied and mastered the working of his engine, and it became a sort of pet with him. He learnt that the wonderful engines of Watt and Boulton were to be found described in books, and with the object of mastering those books, though a grown man, he went to a night-school, at threepence a week, to learn his letters. For fourpence a week he included "figuring," while at the pit he acquired the art of brakeing an engine. When, as a brakesman, he made nearly 11. a week, he married Fanny Henderson, a pretty farm servant, who made him an excellent wife, and brought comfort as her dowry to the cottage which he took for her on Wellington Quay. At this time, during his leisure hours, he added to his income by making and mending the shoes of his fellow-workmen. Next he took to making shoe lasts, in which he was expert, and drove a good trade. From cleaning and repairing his own clock, he also became one of the most famous clock doctors in the neighbourhood. was thus prospering and happy till calamity overtook him and he lost his wife. Soon afterwards he removed for an interval to Scotland. On his return he found his father reduced by an accident to blindness, and consequently to poverty, so he paid his father's debts cheerfully, undertook the support of him and of his mother, and discharged this filial duty towards them until their death.

In 1812 he was appointed enginewright at Killingworth, with a salary of 1001. a year. Here he began his experiments with the locomotive. Wooden rails, it appears, were first laid down for the service of coalpits as early as 1602, and iron rails were afterwards used. The waggons were drawn by horses. From an early period Stephenson was quite sanguine as to the "travelling engine." He had inspected "Black Billy" and Blenkinsop's Leeds engine, and at length he brought the subject before Lord Ravensworth, the principal proprietor of the Killingworth colliery, His Lordship advanced money, and an engine was made which was accordingly called "My Lord." It was the most successful working engine that had yet been constructed, and succeeded in drawing thirty tons weight at four miles an hour. Still its economy was questionable, for it proved only that steam-power and horse-power were on a par in point of cost, while the speed of the engine was not beyond that of a horse's walk. At this point, however, Stephenson's genius turned the decision of the issue. The happy thought came to him to utilize the escaping steam by making it blow his fire. This invention of the steam-blast in the chimney imparted velocity to the smoke, and so increased the ascending current of air that the power of the engine became more than doubled. He determined to make another engine, and this, which was constructed in 1815, was found to answer extremely well. Although many improvements in detail were afterwards introduced by George Stephenson himself, as well as by his equally distinguished son Robert, it is perhaps not too much to say that this engine, as a mechanical contrivance, contained the germ of all that has since been effected. It may, in fact, be regarded as the type of the present locomotive engine.

Stephenson was regarded as an enthusiast, and men shook their heads at his engine, predicting a "terrible blow up some day." He himself went so far as to say that it would supersede every other tractive power. At this period he began to direct his particular attention to the state of the road, as he perceived that the extended use of the locomotive must necessarily depend in a great measure upon the perfect solidity, continuity, and smoothness of the way along which the engine travelled. Even then he was in the habit of regarding the road and the locomotive as one machine, speaking of the rail and the wheel as "man and wife."

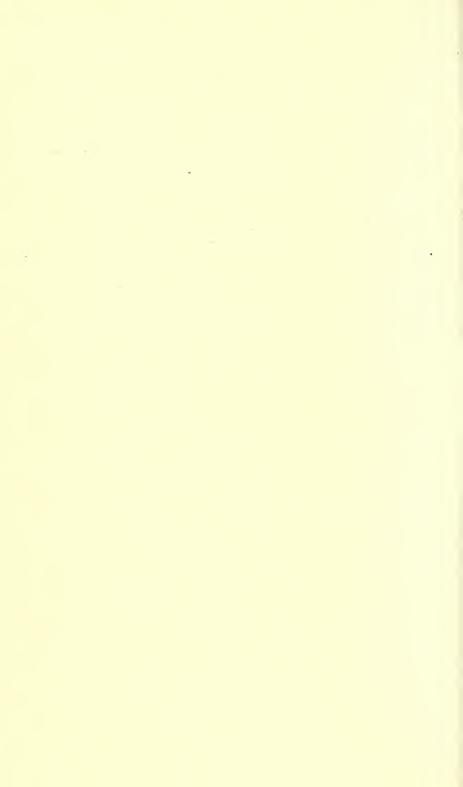
Stephenson had no means of bringing his important invention prominently under the notice of the public. At length it attracted the attention of Mr. William James and Mr. Edward Pease. The former gentleman saw Stephenson's locomotive at Killingworth in 1821, and declared that it would effect a revolution in society. He expressed his belief that Stephenson was the greatest practical genius of the age, and truly predicted that his fame in the world would rank equal to that of Watt.

On the Darlington and Stockton Railway being sanctioned by Parliament, Stephenson was appointed the company's engineer, at 300l. per annum. The line was opened in 1825, and proved financially a success. When the railway between Liverpool and Manchester was projected, Stephenson underwent an examination, which lasted three days, before a Parliamentary Committee. One of the members asked whether, if a cow should stray on the line and get in front of the engine, that would not be a very awkward circumstance. "Yes," replied the witness, "very awkward indeed-for the coo!" At length authorization was obtained, Stephenson became engineer-in-chief of the company, and the works were completed in 1829. At first it was intended to employ horses to draw the carriages, but the directors afterwards offered a premium of 500l. for the best locomotive engine. In the competition which ensued the prize was won by Stephenson's famous engine the Rocket, which, during the trial trip, attained a maximum velocity of twenty-nine miles an hour. The problem of the locomotive engine was thus practically solved. railway was opened in 1830, and the prosperity of the company proved the success of the new mode of travelling.

The subsequent career of Mr. Stephenson was as rapid and smooth as the railway locomotion he had done so much to realize. He took the lead at once in railway engineering, became an extensive locomotive-manufacturer at Newcastle, and a railway contractor, a great colliery and iron-work owner, particularly at Clayeross, and acquired great wealth. He was created a Knight of Leopold of Belgium; a Fellow of the Royal Society; and he was the founder and first president of the Society of Civil Engineers. His death occurred on the 12th of August, 1848, at Tapton House, near Chesterfield.

CHRONOLOGY.

A.D.		Age	A.D.	Age
1781	Born at Wylam, Northumber-		1819 Married second time	38
	land.		1825 Stockton and Darlington	
1798	Became "engine-man"	17	Railway	44
1802	Married	21	1830 Manchester and Liverpool	
1804	Lost wife	23	Railway	49
1812	Appointed enginewright	31	1815 Visited Belgium and Spain .	64
1813	Made locomotive steam-engine		1848 Died at Tapton in Derby-	
	at Killingworth	32	shire	67
1815	Took out patent; invented			
	safaty, lamn	34		



APPENDIX.

SOURCES OF THE PORTRAITS.

BOOK I.

Poetry.

POETS-DRAMATISTS-NOVELISTS.

HOMER.

Line engraving from the antique bust in the British Museum, known as the Townley. Longhi dis. Caporali inc.

PINDAR.

From an old print in the Drugulin Collection, very sharp. Specimen of early engraving.

ÆSCHYLUS.

Enlarged from a gem, published in Visconti. Longhi dis. Bosa inc. Open letter proof, fine.

SOPHOCLES.

Line engraving from the bust in the Capitoline Museum, Rome. Longhi dis. Bosa inc.

EURIPIDES.

From an early edition of Visconti. The original bust is in Rome. The engraving is coarser than in some of the later editions, but the likeness is better. Hall Collection.

ARISTOPHANES.

The bust in the Galleria del Gr. Duca, Florence. Campiglia del. Gregori sc. Scarce. Didot Collection.

MENANDER.

The statue in the Vatican (see Biography). Engraved by A. Aubert. Visconti.

LUCRETIUS.

The original ancient bust is at St. Petersburg. The engraving purchased in Rome. Scarce. The only other portrait of Lucretius is the small gem, in which the drawing is very bad, copied in Munro's Translation.

VIRGIL.

Taken from a gem, size $\frac{1}{2}$ inch. The gem is enlarged by solar camera to two-thirds life size and painted in oil, grisaille. The painting is then reduced by the Woodbury process and the engraving made.

DANTE.

The exquisite line engraving by Raphael Morghen. For origin of the portrait see Biography.

RABELAIS.

Very fine line, engraved by Tanjé, 1739. Only true likeness of Rabelais, all others are caricatures.

CERVANTES.

Painted by Velasquez, engraved by Leisnier, Paris, 1853. Good specimen of modern work.

SHAKESPEARE.

The Avon Bust (see Biography). Has been several times engraved in stipple and mezzotint; the one here given is the best.

MILTON.

"At Sixty." The well-known engraving by Vertue. This is one of the most costly portraits of Milton.

MOLIÈRE.

From the painting in the Louvre by Coypel. Engraved by Lépicie. The only fine portrait, and scarce. Most portraits of Mohère make him resemble a mulatto. One of the portraits sold for Molière is false, being that of a young nobleman whose features resembled those of the dramatist.

GOETHE.

"At Eighty." From a painting for which Goethe sat in his eightieth year. The print is modern, an extremely fine lithograph published at Munich. This is the favourite portrait of Goethe.

SCOTT.

Engraved by William Walker from a picture by Sir Henry Raeburn, R.A.

BOOK II.

Art.

ARCHITECTS AND SCULPTORS—PAINTERS—MUSICIANS.

PHIDIAS.

Composed by De Mar, from fragments of the Parthenon in the British Museum.

PRAXITELES.

From an old print of an antique bust. Of doubtful authenticity; the general character of the bust is of the time and style of Praxiteles.

LEONARDO DA VINCI.

The celebrated engraving by Raphael Morghen, from the painting by Leonardo in the Gallery at Florence.

MICHAEL ANGELO.

Original painting by Michael Angelo himself, belonging to the Baron d'Alquier. T. L. Potrelle, del. et sculp. Hall Collection.

RAPHAEL.

"In Youth." Gallery at Florence, Raphael, pinxt. B. Desnoyen, del. Forster, sculp. 1836.

CORREGGIO.

The original painting in Parma. Ravenel del. sculp. Parmæ, 1781. Didot Collection.

TITIAN.

Original painting belonging to Chaix d'Est-Ange. Titian, painter. Engraved by Alf. Francoise, 1842.

RUBENS.

"Rubens at Maturity." Vandyke, pinxt. Vanden enden excudit. Drugulin Collection. The engraving is marked, "Avant le nom de Paul Pontius. De la plus haute rarété."

REMBRANDT.

Line engraving. Didot Coll. Upper portion of three-quarter length portrait. He holds brushes and palette in his hand. This is the most characteristic portrait of Rembrandt.

BACH.

Modern line engraving. C. Jäger, pinxt. F. Andorff, sculp.

HANDEL.

Line engraving from Dr. Arnold's edition of Handel's works. Hudson, pinxt. W. Bromley, sculp., 1789.

MOZART.

"At Thirty." Line engraving. Upper portion of full-length portrait, holding note-book and pencil in hand. Modern, features very handsome. Barfus, sculp., Munich.

BEETHOVEN.

Companion to the last. These pictures characterize the genius of the two men. Barfus, sculp, Munich.

BOOK III.

Religion.

RELIGIOUS FOUNDERS-THEOLOGIANS-REFORMERS.

MOSES.

The statue by M. Angelo. Full length. French print. Engraver unknown. Didot Collection.

ZOROASTER.

Copied from a bas-relief at Persepolis. Examples of Persian Iconography in "Early Sassanian Inscriptions," by Edward Thomas, F.R.S.

CONFUCIUS.

Engraved from the Shing Meaon sze-teen too Kaou; King, Mang, shing tseih too foo. Sacrificial Ritual of the Temple of Sages. French translation of the last three volumes containing Life of Confucius.

BUDDHA.

From a photograph of the ancient statue, lent by James Ferguson, Esq.

MAHOMET.

From an old print. Likeness traditional. The Crescent symbol is a modern addition.

ST. PAUL.

Enlarged from an engraving founded on the ivory diptyches of the second and third centuries. Models of these are in the South Kensington Museum. The traits of Peter and Paul in the Vatican medal answer to none of the descriptions. Essay on likeness of St. Paul by M. Renan, in the Journal des Debats of April, 1879.

ST. AUGUSTINE.

From an ancient fresco formerly in the Church of St. Ambrose, Milan.

ST. THOMAS.

St. Thomas has been painted by Giotto and others. Likeness doubtless authentic. Engraving by Honeruogt. Drugulin Collection.

ST. BERNARD.

From an old print. Engraver unknown. Scarce. Most of the pictures of St. Bernard are ideal.

ST. FRANCIS.

The authentic portrait is a small wooden portrait, very grotesque, in the Cathedral at Toledo. In the engraving presented, which is from a Spanish source, the features are not in variance with it. Luis G. Campa, sc. Hall Collection.

ERASMUS.

From the painting, by Holbein, in the Louvre. Superb etching, by modern French artist.

LUTHER.

"At Maturity." The well-known painting by Cranach, mentioned by Carlyle. Engraved by Müller.

CALVIN.

From the painting in Geneva. Engraved by Müller.

LOYOLA.

Peter Paul Rubens, pinxit. Gasp Huberté excudit.

BOSSUET.

From the painting in the Louvre. Peint par H. Rigoult; gravé par le Chevalier Edelinck.

WESLEY.

Painted by J. Jackson, Esq., R.A. Engraved by J. Thomson.

BOOK IV.

Philosophy.

METAPHYSICIANS—PSYCHOLOGISTS—MORALISTS.

PYTHAGORAS.

Fine mezzotint engraving by Faber. Drawing by Rubens from the antique, a gem in carnelian. Visconti Pl. 17.

SOCRATES.

Bust in the Capitol. Drawn by Day. Engraved by Bovi. There are many busts of Socrates. The likeness is unquestionable, slightly idealized in the engraving.

PLATO.

From bust in the Ufizzi. Drawn by Scotti. Engraved by Outhine. Visconti Pl. 18.

ARISTOTLE.

Antique bust. S. Jesi del. et sculp. Hall Coll. The heads of Plato and Aristotle are very characteristic.

ST. THOMAS AQUINAS.

From painting of the Middle Ages. Honeruogt excudit. St. Thomas was painted by Giotto and others. Likeness doubtless authentic. Drugulin Coll.

BACON.

Well-known line engraving by Houbraken. Proof. Drugulin Coll.

DESCARTES.

Proof. Line engraving by Edelinck. From a painting by F. Hals. Has also been engraved by Suyderhoef. Another picture by Van Dalen is handsomer, but the likeness is not as good.

JOHN LOCKE.

Michael Bisi delin. et sculp. 1817. Roberto Stewart vice Comiti Castelreaugh, D.D.D. The Vertue portrait is less spirited.

SPINOZA.

Modern French etching, executed for this work. Portier de Beaulieu. The painting formerly at La Haye. Artist unknown.

LEIBNITZ.

Line engraving. Steinla gest. nach F. F. Bause. This is the handsomest portrait of Leibnitz.

BERKELEY.

Old mezzotint. T. Latham, pinx., J. Brooks, fecit. Purchased for this work.

HUME.

Line engraving prefixed to his Works. Painting in the Gallery at Edinburgh, by Allan Ramsay. A. Smith, sculpt.

KANT.

A painting in Dresden, by Schnorr. Engraved by Rosmäsler, 1822. Drugulin Coll.

BOOK V.

Mistory.

HISTORIANS-ORATORS-CRITICS.

HERODOTUS.

Line engraving, double-headed marble bust Herodotus and Thucydides. Antique, Rome. Bein del. et sculpsit. Proof. Didot Coll.

THUCYDIDES.

Antique bust now in the Louvre. Line engraving. Gio. Domenico Campiglia dis. Sylvestro Pomared inc. Tucidide, Bell. Ill. Rhet. num. 89.

DEMOSTHENES.

From the antique bust in the Louvre. Fine stipple engraving by Vauthier and Mècon. Forms one of a series published by Mècon and Vauthier. Many busts of Demosthenes exist, and nearly all agree.

CICERO.

One of the series by Mècon and Vauthier. Stipple engraving after the bust formerly in the cabinet of the Duke of Wellington. Portraits of Cicero show great differences, the likeness here being the favourite.

TACITUS.

Lith. par Julien d'après l'antique. The usual portrait with whiskers is spurious. Portraits of Tacitus are rare.

PLUTARCH.

From an ancient bas-relief discovered at Naples. Painted in grisaille to two-thirds life-size and reduced.

MONTAIGNE.

Fine line engraving by St. Aubin, enlarged one-tenth. The likeness is characteristic, others of Montaigne being more or less idealized.

MONTESQUIEU.

Line engraving by a French artist, drawn from life, in a style of a medallion, the idea of the artist being to give it a Roman character.

VOLTAIRE.

Old coloured mezzotint engraving from the painting by Garneray. Engraved by Mix. Scarce.

DIDEROT.

Peint par L. M. Vanloo. Gravé par David. Line engraving. Didot Coll. K k 2

LESSING.

Line engraving by Sichling, from a painting by A. Graaf. One of a series—Portraits of eminent Germans.

GIBBON.

From a picture after the painting by Sir Joshua Reynolds. This is the only portrait of Gibbon.

BOOK VI.

Science.

MATHEMATICIANS—PHYSICIANS—NATURALISTS.

HIPPOCRATES.

Antique bust in the Louvre. Vauthier del. Mècon sculpt. Many busts of Hippocrates exist, all of which correspond. The likeness is well known.

GALEN.

Modern line engraving from the Roman bust in the College of Physicians in London. The head is characteristic, the features strongly marked.

ARCHIMEDES.

From antique bas-relief—Archimedis Effigies marmorea in veteri anaglypho Roma affervato.

COPERNICUS.

Gravé d'après un tableau du Cabinet de M. de la Lande des Acad. Rl. des Sciences par N. Dandeleau.

KEPLER.

From a painting in the Gallery at Munich. Has been several times engraved. It differs considerably from the Kraenner picture at Ratisbon, but is the one generally accepted.

GALILEO.

Passignani dipinse, Tommaso Minardi disegno, Pietro Bettellini incise. Fine line engraving, Didot Coll.

HARVEY.

From the great painting by Vandyke. There is a portrait by Jansen in the College of Physicians, another by Van Reyn, belonging to the Royal Society, another in the National Gallery. The last is very poor.

NEWTON.

From the picture by Kneller, 1689, now at Cambridge. A fine modern stipple, copyrighted by Graves, who has kindly permitted it to appear in this work.

LINNÆUS.

Fine line engraving by Bervic, Roslin Eques. pinx. Drugulin Coll.

LAVOISIER.

From a miniature; the only portrait current, and repeated in the new editions of his works. There is a stipple engraving bearing his name, which represents a man much younger, and is of doubtful authenticity.

BICHAT.

P. Sudra del. All Bichat's pictures correspond. The features are strongly marked, the forehead finely developed. The appearance is of a man rather older than thirty-one, at which age Bichat died.

CUVIER.

Line engraving, English, 1840. From the painting made in England by W. H. Pickersgill. Inscribed to Prince Albert.

BOOK VII.

Politics.

WARRIORS AND STATESMEN.

PERICLES.

Fine line engraving from antique bust. Copies in the British Museum, in Paris, and in Rome. Joseph Longhi del. per Dalla Libera. Joseph Cozzi sculp.

ALEXANDER.

Line engraving from an antique bust. Rome. Joseph Longhi del. per Dalla Libera. Petrus Anderloni sculp. The features of Alexander resembled those given by artists to the gods,—Hercules, Jupiter, &c.

HANNIBAL.

Three-quarter figure from an antique gem, reproduced in Worlidge Coll. and elsewhere. The face is very dark, features characteristic.

CÆSAR.

Line engraving, profile from an antique statue. Rome. A number of statues, busts, gems, and coins exist. A favourite bust in the British Museum—one also in Berlin. The countenance is thin and delicate, expressive of sweetness and intelligence.

CHARLEMAGNE.

Handsome line engraving, three-quarter view. Giovita Garavaglia del. et sculp. per Dalla Libera. Didot Coll.

ALFRED THE GREAT.

Three-quarter line engraving. G. Longhi dis. per Dalla Libera. P. Carroni inc. Hall Coll.

WILLIAM THE CONQUEROR.

Copy of a painting from an ancient effigy. Reproduced in various histories of England and well known.

CHARLES V.

Titianus pinxit. J. Suyderhoef sculpsit. P. Soutman effigiauit et excul.

WILLIAM THE SILENT.

Koninklijk Museum van's Gravenhage (M. Mireveld). Eliak Sterk del. Déposé Lith. Desguerrois en Co.

RICHELIEU.

Superbline by Nanteuil. One of the best engravings known. Didot Coll.

CROMWELL.

Stipple, by Bartolozzi. Best engraving of Cromwell. Rd. Walker pinxit. F. Bartolozzi, R.A., sculp. Nov. 1, 1802. Purchased in London.

PETER THE GREAT.

Line engraving, published in the Vite e Ritratti. The features are of a Muscovite cast. In most pictures of Peter they are less strongly marked. Petrus Anderloni del. et sculp.

FREDERICK II.

Locatelli dis. per Dalla Libera. G. Cozzi inc. Hall. Coll.

WASHINGTON.

Modern French engraving. One of a pair. Dessiné par Conder. Gravé par A. Blanchard. Admirable portrait and well executed. Face much younger than those usually seen.

NELSON.

Line engraving, three-quarter view, painted by L. F. Abbott. Engraved by R. Graves, A.R.A.

NAPOLEON.

Fine French print. Represents him at maturity. Very handsome, prominent forchead, nose, and chin. Drugulin Coll.

WELLINGTON.

Fine mezzotint engravings of Wellington are common. In this case, as in that of Nelson, a print has been chosen that represents him young.

BOOK VIII.

Endustry.

INVENTORS—DISCOVERERS—PHILANTHROPISTS.

GUTENBERG.

Fine line engraving issued in the Gutenberg Album. Für das Gutenbergs Album gestochen von Eduard Eichens in Berlin. Executed from an ancient print, and regarded authentic.

COLUMBUS.

Line engraving, Nargeo sculp. From painting attributed to Antonio del Rincon, said to be the only authentic portrait.

PALISSY.

From the picture in the National Collection, Cluny Museum. Marked upon the face B. Palissy. Fine lith. Hall Coll.

FRANKLIN.

Head of full-length portrait made during his sojourn in Paris. Portraits of Franklin are common. This one chosen on account of its beauty and rarity. L. C. de Carmontelle del. On the plate is inscribed "On l'a vu désarmer les Tirans et les Dieux."

MONTGOLFIER.

Line engraving by Binet. Le Beau sculp, marked Jos. de Montgolfier, chevalier de l'ordre de St. Michel, Inventeur d' l'Art Aërostatique.

ARKWRIGHT.

Engraved by T. Oldham Barlow, from the original picture by Gainsborough, R.A. In the Collection of Mr. B. Woodcroft. Great Seal Patent Office. Mezzotint. Artist's Proof. Signed in pencil, Thos. Oldham Barlow.

HOWARD.

Stipple engraving in the older manner, from a painting by Mather Brown in possession of the family. Engraved by Edmund Scott, 1789. In the original he holds in his hand the plan of a lazzaretto.

WATT.

Mezzotint engraving, from the bust by F. Chantrey, A.R.A. Engraved by S. W. Reynolds. Published 1825.

STEPHENSON.

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THE END.





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