Stillwell

Mary M. Nowlin
1901

BUDDHA—BRONZE IMAGE, AT KAMAKURA, JAPAN

Digitized by the Internet Archive
in 2010 with funding from
Lyrasis Members and Sloan Foundation

http://www.archive.org/details/sixthousandyears04sand

SIX THOUSAND YEARS OF HISTORY

BY

EDGAR SANDERSON, A. M.

AUTHOR "HISTORY OF THE BRITISH EMPIRE"

J. P. LAMBERTON, A. M.

AUTHOR "HISTORIC CHARACTERS AND FAMOUS EVENTS," "LITERATURE OF ALL NATIONS," ETC.

JOHN McGOVERN

AUTHOR "THE GOLDEN LEGACY," "THE TOILERS' DIADEM," "FAMOUS AMERICAN STATESMAN," ETC.

AND THE FOLLOWING EMINENT AMERICAN EDITORS AND WRITERS:

JOSEPH M. ROGERS, A. M.; LAURENCE E. GREENE; M. A. LANE;
G. SENECA JONES, A. M.; FREDERICK LOGAN;
WILLIAM MATTHEWS HANDY

INTRODUCTION BY

MARSHALL S. SNOW, A. M.

PROFESSOR OF HISTORY WASHINGTON UNIVERSITY AND DEAN OF THE COLLEGE; AUTHOR "CITY GOVERNMENT," "POLITICAL STUDIES," ETC., ETC.

TEN VOLUMES

VOL. IV.

GREAT PHILOSOPHERS

E. R. DuMONT, PUBLISHER
PHILADELPHIA CHICAGO ST. LOUIS
1899

Copyright, 1899
by
EARL R. DuMONT

The Werner Company
Printers & Binders
Akron O.

CONTENTS

PAGE

THE ORIENTALS - - - - - 1
THE EARLY GREEKS - - - - - - 31
SOCRATES AND PLATO - - - - - 63
THE CYNICS - - - - - - - - 88
ARISTOTLE - - - - - - - 103
EPICURUS, ZENO, PYRRHO - - - - - - 124
THE ALEXANDRIANS - - - - - - 149
RETROSPECT - - - - - - - 153
AVERROES AND AL GAZALI - - - - - 157
THE SCHOLASTICS - - - - - - - 169
GIORDANO BRUNO - - - - - - 187
BACON - - - - - - - - 204
DESCARTES - - - - - - - 228
HOBBES AND LOCKE - - - - - - 239
SPINOZA - - - - - - - - 263
BERKELEY AND HUME - - - - - - 273
THE GERMANS - - - - - - - - 299
  KANT - - - - - - - - 299
  FICHTE - - - - - - - 319
  SCHELLING - - - - - - - 326
  HEGEL - - - - - - - 330
CONDILLAC - - - - - - - - 335
EMERSON - - - - - - - 338
COMTE - - - - - - - - 345
SPENCER - - - - - - - 359

ILLUSTRATIONS

	PAGE
BUDDHA	1
SOCRATES	64
PLATO	80
ARISTOTLE	112
EPICURUS	128
BACON	208
DESCARTES	232
LOCKE	256
SPINOZA	264
HUME	288
KANT	304
HEGEL	320
EMERSON	336
COMTE	344
SPENCER	360

WORLD'S GREAT PHILOSOPHERS

THE ORIENTALS

It is the purpose of this volume to sketch briefly the lives and doctrines of those men who have been most eminent in that field of thought which is described generally by the word philosophy.

There is some difficulty, when the subject is treated historically, in separating philosophy from science on the one hand, and from theology on the other. For in the early growth and development of human knowledge these three instruments of progress are so intertwined and interdependent, have such closely related causal connections, and are made one, at least functionally, by nexi which cannot be severed without fatality to all, that we are perforce required to take account of all when examining each.

But while this is without doubt true, it is by no means impossible to follow the stream of speculative thought through the centuries, recognizing its scientific aspects when such aspects are present and not disregarding its theological significance when it seems to disappear in theology. Inasmuch as these sketches shall be biographical mainly, no attempt will be made at an exposition of doctrines in any manner adequate for the purposes of a history of philosophy. That field has been well tilled, if not too well tilled already. There is but one other biographical history of philosophy in the English language and the complaint is made against it that it is dominated by the concepts of one latter day philosopher, whose followers have degenerated into a perfervid emotionality bordering upon the fanaticism of religion. The work referred to is that of the late Mr. Lewes and the philosophy that of Auguste Comte. The present work shall aim not at a critical examination of systems, or at an historical consideration of the evolution of thought, but rather at the disclosure of the personalities of the men whose names are written broad and large upon the record of man's intellectual liberty.

Who, then, are the Philosophers? We may better arrive at a satisfactory answer to this query by in turn asking, What is Philosophy? It would be useless to weary the reader by leading him through the maze of definitions which have been made or attempted by writers almost without number. "By philosophy," says Windelband, "present usage understands the scientific treatment of the general questions relating to the universe and human life." This definition is weak, or incomplete, in that its exclusion is too narrow. By a little stretching the same definition could be applied to the science of sociology, a fact brought out by recent claims for the universality of social science as the *scientia scientiarum*. For a detailed list of definitions of philosophy given by philosophers themselves, the reader may be referred to "Ueberweg's History of Philosophy." Windelband's definition obviously suggests that which has been worked out by Mr. Herbert Spencer and it may be well to let the reader see the latter at first hand. "Knowledge of the lowest kind," says the great evolutionist, " is *ununified* knowledge; science is *partially unified* knowledge; philosophy is *completely unified* knowledge"—a very different matter from "the scientific treatment of general questions relating to the universe and human life."

Philosophy, to make use of a somewhat worn phrase, has ever speculated upon the origin and destiny of the universe, and, inclusively, of man. Theology has dogmatized. Science has investigated. The earliest philosophers were partly scientific men, partly speculators. The more remote their time the more general was their thought. The processes of differentiation and specialization went on until inquiry was diverted into as many lines as there were philosophers. And this movement continued until, in our own day, the entire cobweb of metaphysical guesswork was swept away to give place to the generalization, as high as may be, of the facts which Science, working quietly and patiently, had digged in the dark. Metaphysics to-day is a "surmounted category" of the history of human thought. But he would be an unthinking man who did not accord to metaphysics its proper place as an instrument of intellectual progress, while if we look backward we may see in many places the anticipation of living truths at which man has arrived with certainty after centuries of toil and waiting.

Let us, therefore, regard as philosophers such as have earnestly and honestly striven to interpret nature in the light of truth. Any mind that has in any way stimulated the desire for knowing, and knowing rightly, is a mind philosophic, and of such there are many. But the limitations of this work require us to conform, with a few exceptions, to academic traditions, and to treat only of those philosophers that are readily accorded the right to the name.

The earliest philosophers of whom there is record were the men who wrote the *Vedas*. It is idle to contend that the Brahministic system is a theogony. There is but one bolder and nobler attempt of the human mind to uprear a connected and systematic theory of all things. That attempt is to be found in the system of Gautama, the architect of Buddhism. The writers of the *Vedas* were the first among men to evolve a rational theory of the universe, and some account of what they thought is precisely necessary to any conception at all of the important speculations of the reformer of Brahminism, the prince of the Great Renunciation. Fortunately, science has come to our aid as the "handmaid of philosophy," and the Orientalists have given us glimpses of the thoughts that stirred the Hindu mind in time when the borderland of history melts into the inscrutable haze of antiquity.

To say now that the universe is in process of ceaseless change; to say that all processes of nature are but parts of one universal process; to say that as beginning is inconceivable and end unthinkable, there was no beginning and there can be no end; that rhythms and cycles follow rhythms and cycles sweeping in eternity through infinity to say these things to-day is commonplace and we have an undefined consciousness that in some way modern physical science has so informed us.

Yet this thought is the pivot upon which the Brahmin philosophy swings. The Brahmin system is a philosophy so all-inclusive as to transcend human understanding. In whatsoever manner we state it, analysis will lead us to the conviction that the words have only a symbolic value, and the seeming ideas involved in the statement are not true ideas, but, in Spencer's way of saying, are merely symbols of ideas. The world was not made by God, but comes out of God—emanates from God. Matter is everywhere permeated with spirit, and matter and spirit are God. There can be but one God, because He is all that is. The spirit of the universe moves the matter of the universe, but there is here no question of duality; there is only unity. There are cycles within cycles, activities within activities. But periods of activity imply periods of inactivity—the Hindu observation of the law of motion that action and reaction are equal and opposite. If there be a beginning at all it is only the beginning of a period of activity or the beginning of a period of rest. The familiar phenomena of everyday life found in sleeping and waking, day and night, summer and winter, the Brahmins extended to the universe: infinite matter and spirit, the one and the all, functioning in the macrocosm as in the microcosm, only on an inconceivably large scale. The universe manifests itself to itself; rests for an eternity, is roused for an eternity. Such ideas, when subjected to analysis, seem to be pseud-ideas. But what must we say of the "heathen" minds that evolved them?

Briefly stated, the Hindu cosmogony, if we call this daring attempt to map out eternity a cosmogony at all, is this: The universe has no beginning and no end. It is ruled by a rhythm of activity and of rest. Brahm, in the active state, is in the state we now see. Cycles, infinite in number, correlative to eternity in duration, swing forward and back, gaining always a little toward the relative end. During the active state every atom of matter throbs, every atom changes. The substance remains, the form is never the same. The Future is beginning just as the Past is ending. There is only the Present. Energy at work everywhere, at all times, builds up the cosmos and breaks it down. At last all energy wanes, consistency crumbles, growth lapses into decay and the universe sinks back into God. The day of Brahm has changed into night; his waking into sleeping; his activity into rest. The period of rest is the equal in time of the period of activity. God sleeps. He sleeps until He is refreshed, until the tired universe is restored, and then He awakes to another period of activity, another cycle of ceaseless change, another *day* of transformation, manifestation, and sentiency. The period of activity is called Manvantara; the period of rest, Pralaya. To this action and reaction there has been no beginning, there will be no end. Such is the speculation of the Brahmin.

Through whatever avenues of thought the Hindu intellect reached these startling conclusions, it must be confessed that the scheme is one which makes the mind recoil upon itself and forces it almost to expel from consciousness the feeling generated. But it is interesting to know that the greatest generalizer of science has been led to the same end by methods that are unquestionably as scientific as the most exacting could desire. The reader may judge for himself how far Herbert Spencer has agreed with the Brahmins in his final conclusion as to these processes that are going on in nature. He says, in summing up his reasoning, based upon facts that have been accumulated by scientific observation:

"We find reason for thinking that after the completion of these various equilibrations which bring to a close all the forms of evolution, we have contemplated *there must be an equilibration of a far wider kind.* When that integration everywhere in progress throughout our solar system has reached its climax, there will remain to the effected the immeasurably greater integration of our solar system with other such systems. There must then reappear in molecular motion what is lost in the motion of the masses, and the inevitable transformation of this motion of masses into molecular motion cannot take place without reducing the masses to a nebulous form. *Thus we are led to the conclusion that the entire process of things as displayed in the aggregate of the visible universe is analogous to the entire process of things as displayed in the smallest aggregates.*" A conclusion that had been reached thousands of years ago by the philosophers of the Orient. This was the system the writers of the *Vedas* thought out. It is not credible that men whose fearlessness of mind led them so far could have seriously considered the absurd theogony that is not without warrant laid at the doors of Brahminism, unless we take refuge in the apology, applied nowadays to all sacred writ, that seeming statements of fact must be sprinkled with the salt of allegory. However, with degenerate Brahminism we have nothing to do.

The antiquity of the Brahmin philosophy is very great. Nearly a thousand centuries before the awakenment of thought in Greece, the Hindus speculated with much ingenuity on the source and the destiny of man and the cosmos. As early as 1400 B.C., Vyasa founded the Vedanta School, and even he saw before him an already established school—the Mimansa. The Vedanta School produced an incredible quantity of literature. After Vyasa came the logical school, with a system so closely resembling that of Aristotle as to lead many commentators to the belief that Aristotle borrowed from the Aryans—a belief justified by the similarity of the Oriental logicians, even in details, to the work of the Greek. Another ancient school, that of Kanade, dealt with a theory of atoms, which centuries later reappears in Greek thought. The school of Kapila departed from the others in that it was atheistic. Lastly there came Patanjali with a philosophy founded on Theism.

These are the six great schools of which so much has been said and so little in any manner that can be called satisfactory. The Orientals were masters of metaphysics. Most of what they have left behind—and the quantity is voluminous—remains untranslated, although every year brings valuable additions to the stocks now available for those who are not philologists. But even with such as we have the difficulties are very great. The closest study often fails in arriving at a comprehension of the terms used, and fresh obstacles present themselves at every step. It is manifestly impossible to supply the equivalent in any of the modern languages—say rather in any of the Occidental languages—of terms for which no corresponding ideas exist in the Occidental mind. With such terms the Indian philosophy is replete. Even the comparatively modern Buddhist term, *Dharma,* has been a source of perturbation to the translators. It is rendered "the Law," but this is an inadequate translation. It has likewise been used as meaning "righteousness," but this is even a less satisfying term. The best that can be done is to master, in so far as possible, the concept of the philosopher, and then make use of the original symbol itself.

This practice has been followed in the use of the term *Karma* with good results. Karma is now a Western word, perfect as a vehicle of thought, and quite beyond the power of the interpreter to do into any Western tongue. And the same is true in less degree, of the term *Nirvana.*

The Pre-Buddhists gave to mankind a lofty conception of the universe. They even went to the extreme of dividing their periods of universal activity and rest into subordinate cycles, with specific lengths in time measured by terrestrial years. But the most useful end served by them was the preparation of the way for the founder of Buddhism.

The life of Gautama is second in thrilling interest only to the life and work of Jesus, who came centuries after him. Both were Orientals—the one Aryan, the other Semite. Both strove with an earnestness that is not less than pathetic to show the way of salvation to men. Both despised the goods of the world and lived in personal poverty, subsisting on the gifts of those who listened, enraptured, to their words. Both were preceptors and maximists. Both built anew on the religion which they found ready at hand among their own people. They spoke in parables, drawing their illustrations from the simple things around them, using the birds of the air, the flowers of the field, the harvest, the housewife, the mustard seed, the fig tree to inculcate some great ethical lesson. The parallel between the two, so far as their personal lives and their presentations of ethical doctrine are concerned, is perfect. But here the lines diverge. Gautama left a system; Jesus none. The metaphysics of the Aryan sage is the refinement of the contemplation of highest things. It exhausts the possibilities of speculation. It leaps at conclusions to which the metaphysicians of the West have not arrived thousands of years later. And it is only, one may say, in the present day we have learned to know that Gautama's theory of consciousness anticipates by nearly 30 centuries the highest results of modern scientific psychology. But more of this hereafter.

Gautama was born about 500 years before Christ. It is interesting to note that what is considered the most valuable archæological discovery of the year 1898 has left without doubt the accuracy of the history in which is preserved the records of his life. The books agree in saying that Gautama was born at Kapilavastu, a town about one hundred miles east and north of the sacred City of Benares. Kapilavastu is now a mass of brick ruins, overgrown and buried in part with thick jungle. The city was destroyed even in the lifetime of the Great Teacher. It was a mere ruin in the jungle when the first Chinese pilgrim visited the place in 410 A.D. But there has been found there a pillar erected and inscribed in the Third Century B.C., which sets at rest all questions as to the precise place where and date when Gautama was born. At the present time excavations, being pushed forward as rapidly as possible, disclose buildings of greater antiquity than have been found as yet in India. It is even believed that the ashes of India's most illustrious son will be found in the place where they were laid 2,400 years ago.

Gautama sprang from the tribe of the Sakyas, Aryans who had settled in the pleasant valley of the River Rohini in the shadows of the great Himalayas on the borderland of Nepaul. His father was Suddhodana, the Raja of the Sakyas, and his mother the daughter of the Raja of the Koliyans, a cousin tribe of the Sakyas who dwelt on the other side of the river. The sister of Gautama's mother was also the wife of Suddhodana, and when the mother died, seven days after parturition, the babe was cared for tenderly by his aunt and foster mother.

Various names are indiscriminately and unwisely applied to the founder of Buddhism, and he is not exceptional in respect of this. The parallel here is again perfect between Jesus and the Indian philosopher. His own true name was Gautama. He is called "Sakya-Muni," or, in the way of English pronunciation, "Chakia-Mooni," which means simply "the sage of the Sakyas;" he is called "Sattha, the teacher;" "Bhagava, the Blessed;" "Loka-Natha, the Prince of the World" (a title assumed by Jesus); "Sakya-Sinha, the lion of the Sakyas;" "Dharma-Raja, the king of the law," and many others which disclose the wealth and exuberance of the Oriental imagination. But the title by which he is most widely known is that of Buddha, "the enlightened One." This title he chose for himself as Jesus chose "Christ," or "Immanuel," "the Annointed," and by the names "Buddhists" and "Christians" are their followers known to-day. The Buddha is frequently called Siddhartha, but this is a mere title, meaning "he that hath accomplished his purpose."

It is not unnatural that the pious and zealous biographers of Gautama should have indulged in extravagant stories of the childhood of their beloved teacher, and there are legends in which are recounted the miracles and marvels that preceded and accompanied his birth, which, by the way, is said to have been a miracle of itself in as much as the child was heaven descended.

The son of a king, Gautama was reared in all the manly arts that befitted his station in life. We are told that he surpassed all his fellows in athletic feats, in skill with the bow, and in those physical accomplishments so dear to the ambition of healthy young manhood. In a tournament to which he invited all the youth of equal age in his tribe, he excelled them all, and the chroniclers have been at pains to leave details of these events so minute as to be absurd. It is not improbable, however, that Gautama, in youth, was well trained, for he passed through much fasting, trial, and self-inflicted punishment to live to the extreme of old age and to have been possessed of every faculty to the very last. Apart from the story of his performances in the lists of the time, and his marriage at the age of nineteen with his cousin, Yasodhaha, the record of Gautama's youth is bare. The books leave him there for the reason that the writers who came after his death and at a time when his influence began to be really and widely felt, were lacking in data. There are no apocryphal gospels in Buddhism and the student of the Buddhist books is spared the pain of beholding a noble character marred and made grotesque by the childish hand of superstition. The legends and miracles of Buddha are all tempered with dignity, and it would be strange indeed had not the warm color of the Orient been thrown around the life of the strong and loving heart.

Gautama disappears, then, in the records, for a time. How he lived, what he did, what were his boyish joys and sorrows, the influences that fashioned his mind and prepared him for his future, we do not know. He reappears in his thirtieth year as a teacher and savior of men. His precocious, all-embracing love for his fellows must have been ill assorted with the scenes of idleness and luxury he saw about the court of his father. He was puzzled with questions thrust upon him by the observation of things around him. Why was he a Prince, his fellow a paralytic? Why was the scheme of life wrought out by torture; men born in pain only to die in fear; love but the prelude to death; plant, animal, man, reproducing themselves only to grow that they might decay, and through it all running the fire of desire, consuming but never consummated? We can imagine such questions as these perturbing the supersensitive brain of the young Aryan until sick with the pearls and the gold and the fine fabrics of royalty he flung these aside and went out from them into a world that was throbbing with pain. In that world, close to that woe, lay his mission.

It is related that thus to prepare himself for his ministry Gautama sought the placid peace of solitude and gave himself up to meditation that he might learn the secret of the sorrows of humanity, and learning the cause, so provide the cure. Such delusions as this spring up only in emotional natures, but there is rarely found in such natures the combination of the largeness of sympathy with the keenness of intellect that we find in Gautama. An obstacle of great gravity presents itself in the birth of a son, but Gautama, having consecrated himself to the one purpose, resignedly relinquishes the joys of fatherhood, and, after a visit to Kapilavasta, steals away in the night, while

Yasodhara sleeps and returns to his caves with Chauna, his charioteer, as his only companion.

Passing by the legend in which is related how the Devil, Mara, tempts him and how he triumphs over the powers of evil, we find Gautama sitting at the feet of certain Brahmin sages, specifically, Udraka and Alara, imbibing all that these masters knew of the complex theories of the Hindus, only to rise unsatisfied and unconsoled. He retired to the jungle and for six years subjected himself to the most severe punishment of his body. In this way he attracted numerous followers and admirers who, though well fed themselves, attended the "holy man" and paid heed to his words in the custom of the time. One day Gautama, faint from lack of nourishment, fell unconscious to the ground where his followers, believing him dead, left him. Recovering, the Prince rose and slowly made his way out of the jungle into the village. His fasts and his vigils and his penances had been to no purpose. Weak and tottering, he approached a woman of the village, who readily gave him his morning meal.

Gautama, taking the food, sat down beneath the shade of a great tree and ate. As he ate the horror of the past sank back behind him. Under the shadow of the great tree he sat, for a time in despair, swayed now by the temptation to return to home and wife and child, now by the deep desire to struggle on through the darkness to the light; and so arose the tradition of the sacred Bo-tree which has been likened to the sacred symbol of the cross. All day in Gautama's brain the battle raged between doubt, despair, and hope. As the sun sank great peace came upon him. He saw at last the truth. He knew the cause of sorrow. He became Buddha, the enlightened, and already was begun the growth of his system, the most rational religio-philosophical system evolved by the intellect of man.

Freed now from the fasts, the penances, the Buddha went forth joyfully to bring peace into the world. But his former followers regarded his change of mind obliquely. One, to whom he announced his freshly acquired knowledge, turned about abruptly and left him with bitter words in his mouth. Gautama ate as his hunger required. His gaunt frame filled. His haggard, sunken cheeks rounded. Nutrition and new made blood brought the brilliance of health to his eyes. His face shone. Doubt was behind him. Fear was conquered. Death, and life, too, were vanquished. The system, nascent under the Bo-Tree, was now growing and was rapidly matured. This was the hour in which he became the reformer. The utter emptiness of ritual, hymn, and sacrifice was clear as the peaks that stood out against the blue sky before him. Through the medium of the new revelation the robe of the priest, to his eye, was less than the beggar's garb; to his ear, the sound of the mantra hollow and vain. Bent on his mission, he went to Benares, in which city some of his old pupils lived. The marked change in his appearance excited their suspicions. Why was he so beautiful, he who should be thin, and severe as befits the ascetic? He was a Prince and a Brahmin of the high caste, and in so much he was shown the respect that was accorded his rank by custom and tradition, yet it will be observed that his old pupils addressed him simply as Gautama, his human name, stripped of all title.

But Gautama was not discouraged. In answer to the question how had it come about that he who had failed to learn the truth in the approved method, i. e., by fasting and penance, could have become enlightened, as he informed them, by pure thought, he replied with the first sermon of his ministry. As he spake, the gods, the angels, the powers of the air and the underworlds came to listen. His discourse was made in Pali, but each listener heard it in his own tongue. In this first sermon Gautama outlines his theory of the causes of sin and woe, and points the avenue of escape. He preached in a pleasant park, without Benares, and for some time remained there expounding his doctrines to all who would listen. He could not but realize the vast distance that separated him from those around him. Great or exceptional knowledge has ever paid the penalty of loneliness. To know and understand that which is beyond the comprehension of immediate associates has a tendency to make the nescient one sad and self-centered. For the natural inclination of man is to share with others, with all, the fruits of his intellectual labor. Guatama felt the solitude of his station among the multitude. He taught, but few could learn. The same was true of Jesus; they heard but they did not understand.

Gautama resembled Jesus, in this respect, more than any of the world's philosophers of later times. His prodigious love of the human race prompted him to preach to all alike. There were no initiates, no favored neophytes. He scattered the seeds of his thought broadcast on all kinds of soil. Old and young, rich and poor, men and women were welcomed with more warmth than even the Brahmin students of the books. Gautama's success lay in two elements: his personal beauty and amiability, and the absolute equality of all men in his system. It is easy for us to picture to ourselves the man and the scene. In the youthful face of the Buddha was seen the great peace of his mind as a clear pool draws down into its heart the infinite blue sky. From his eyes came the light of perfect and pure satisfaction. Those who saw and heard him could not but be impressed with this truth at least, that he himself had found a certitude that could not be shaken. He did not ask men to lean upon him or to look to him for any help beyond the knowledge of the "noble eightfold path." Insisting that each individual must work out his own salvation, with no hope of vicarious responsibility, with no prospect of escape from the effects of conduct right or wrong; teaching that, in the law, the Brahmin and the Sudra, the prince and the mendicant, were equal, it is not surprising that he recruited his disciples from among the poor.

After Guatama had preached for half a year in the deer park he had attached to himself sixty chosen disciples. It is not to be presumed these sixty were drawn, as were the apostles of Jesus, from the ranks of the ignorant. For Gautama, in giving them his final orders, admits that these men have understood him and have succeeded in slaying within themselves the five great passions that obscure the perception of truth. He plans a great missionary movement whereby the doctrines are to spread everywhere. "Go ye now," he orders, "and preach the most excellent Law, expounding every point thereof, and unfolding it with care and attention in all its bearings and particulars. Explain the beginning, the middle, and the end of the Law to all men without exception. Let everything respecting it be made known in public and brought to the light of day." These instructions imply that Guatama was satisfied that his disciples were competent to expound at least the ethical bearing of the system on its metaphysics. In Bigandet's translation Gautama closes his parting advice to his disciples in these words: "For my part I will direct my course to the village of Sena, situate in the vicinity of the solitude of Uruwela."

Thereafter Gautama traveled from place to place spreading his doctrine of the Law. His propaganda was conceived in very practical fashion. For eight months of the year he traversed the country and preached to all who cared to hear, and these were many. During these same months his disciples likewise traveled, and taught the people. But when the rainy season set in, about the first of June, Gautama took up a station in one place where he remained until the rain ceased. To this retreat the disciples repaired to receive further exposition of the Law. And it occurs to us that while Gautama thought sufficiently well of the sixty to send them out to preach, it is by all means probable that the disciples were yet lacking in finish.

One of the earliest and most important conversions to the doctrine of the Law was that of three brothers who lived in the lonely places near Uruwela. The name of these brothers was Kachiapa. They were hermits and teachers, with a doctrine made up of a strange mixture of fire worship, with some independent theory of their own. These teachers and Gautama were brought together. The Kachiapas were completely won over by the doctrine of the young Buddha. The eldest brother was the first to surrender and the others soon followed his example. The brothers at once assumed an important function in the propaganda of Buddhism and added their followers to the body of its believers.

Gautama, with the skill of a genius, used the fire worship of the converts as a text and preached a metaphysical sermon, which is, in reality, an epitome of the system, a rapid and brief summarization of the action and reaction of Karma. The travels and the work of Gautama and of the eldest Kachiapa are of vast interest. Gautama, while seemingly treating the former fire worshiper as an equal, really uses him as an instrument to exemplify the Law. The two teachers, with their combined followings, made a short journey down the Valley of the Ganges to the city of a great Raja. The arrival of two such distinguished leaders naturally aroused the town and many came forward to listen and to learn. The account of Gautama's association with the brothers may be found in Spence Hardy's "Manual of Buddhism," in Beal's translation of "The Romantic Legend of the Burmese Buddha," and in Bishop Bigandet's work.

The people of the city were in doubt as to which of the two great men was the greater. Kachiapa's fire worshiping was well known. Gautama readily disposed of the question by appealing to Kachiapa to say why he had recently foregone the offering of sacrifices to Agni, the Hindu fire god. The convert having well learned his lesson in the metaphorical sermon on fire, recites it to perfection. Why sacrifice to gods when the only way to Nirvana lies along the path of inward purification and the realization that the passions serve but to obscure the light? Then Gautama, with an adroitness that provokes our unbounded admiration, naïvely assuming immense superiority over the fire worshipers, explains to the people that Kachiapa in a former life was a most righteous man, and for that reason was now reaping his rewards by contact with the truth. The multitude was deeply impressed, a fact of which Gautama seems to have taken immediate advantage, for he straightway began an exposition of the four noble truths. Many converts were made here. Even the Raja was gravely disturbed in his mind and at last became himself a convert to the new doctrine of the Law. He favored Gautama with his prestige and his power and presented him with a site for teaching in a pleasant grove where the Buddha sat for many months and instructed the people.

By this time Gautama's Order of preachers was well established. The requisites for membership as defined by the founder himself, were these: "To cease from all sin, to get virtue, to cleanse one's own heart, this is the religion of the Buddhas." It may be imagined that Gautama's family in the valley of the Rohini had not remained ignorant of his fame and his mode of life. His son had now grown up to young manhood and at his father's invitation Gautama visited Kapilavastu, where the household of the palace assembled to meet him. Gautama had gone out a young Prince in royal robes and flashing jewels. He returned with smooth face and shaven head, clothed in the yellow of the mendicant, with his bowl in his hand.

Gautama noted that with the crowd Yasodhara, his wife, came not. He sought her out in her apartment, cautioning his followers not to interfere should she attempt to embrace him. The meeting is a drama in itself. Yasodhara beheld her transfigured spouse with mingled feelings of veneration, fear, and love. She approached him falteringly, but as she came near, her form trembled. She fell upon the floor at his feet and wept aloud. The Buddha was silent and the discarded wife, now knowing that her husband was indeed the Buddha, rose and moved away to a distance.

When in after years Gautama decided that the Law might be preached by women and Buddhist nunneries were established, Yasodhara joined the order, a convinced believer. Many were the converts likewise recruited from Gautama's own tribe of the Sakyas and from among his cousins, the Koliyans. The caste of some of these converts is an indication of the all-inclusive nature of the Buddhistic scheme. One was a barber, of great intellectual capacity, however, and another was a first cousin of the Prince himself. From the Koliyans came Anuruddha, a brilliant scholar, who was afterwards the most finished of the metaphysicians. This account of Gautama's life, thus far, has been taken mainly from Beal's translations of the "Romantic Legend of Sakya Buddha."

Gautama died at about the age of eighty. He taught and preached to the last. In his dying moments he was tenderly cared for by loving disciples. His body was burned and the ashes preserved. The chroniclers, ushering him into the world with a miracle, could not have been satisfied to let him depart without one. When witnesses are dead and gone who can deny? And so we learn that when the flame was applied to the funeral pile the wood did not ignite. It was only after honor had been done to the feet of the dead Buddha that the flame caught and the body was reduced to the elements of which it had been composed.

The philosophy of Gautama deserves more attention than can possibly be given it here. Broadly speaking, Gautama did not disagree with the general scheme of cosmogenesis outlined in the Vedic literature. He did not especially turn his attention to details of natural evolution, as did the Brahmins. He touches on cosmical processes rather by way of making application of these general truths to the particular lives of men. It would not be just to say that Man is the pivot of Gautama's system, but humanity is his principal theme.

As to the origin of things he does not seem to have spoken. Once when asked if the universe was eternal he is said to have remained silent. Some have therefore held that he was agnostic, but this is hardly tenable, for he claimed to know all things. He was Buddha. It is far more probable that he was silent because there are implications in his teachings from which we are warranted in drawing the inference that Buddha did not deem it wise to discuss the Absolute beyond the necessities of his doctrine of Nirvana.

The Buddhistic system can be stated with certainty inasmuch as Gautama lived to perfect it, or rather had almost perfected it before he began to teach. He anticipated by nearly 3,000 years the monistic or mechanical theory of the universe. The totality of things is ruled by the inherent and inflexible law of cause and effect. The universe, therefore, is never at rest. All things change and change incessantly. The changes may be rapid or slow, apparent or imperceptible, but they are ever present.

Gautama does not deny the existence of gods and angels and devils, of heavens or of hells, of states of reward or punishment. But gods and angels are only beings or orders different from man, and they, together with their habitudes, are subject to the same laws and to the same changes as are man and the visible universe. He teaches the Brahmin doctrine of cycles and rhythms, evolution, and dissolution, and we are warranted in inferring that with this theory must go the tenet of the eternity and ultimate causelessness of being. But difficult of comprehension as is the Brahmin system, the Buddhist system is more so. Gautama, seeing that all things perish, that all materiality is presented to our consciousness as an ever shifting and impermanent panorama, arrives at the conclusion that all things of sense are mere illusion. He goes farther. He holds that the senses themselves, out of which the matter and form of consciousness is built up, are illusory also. Man's body and man's mind are no less impermanent than other things. If the universe of things is illusory and man's perceptions and conceptions of it illusions, too, it is idle, nay, vicious, to fix any hope on any of these. Hells and heavens, gods, angels, devils, and men, matter visible and invisible, mind, virtue, joy, sorrow, pleasures, pain, feeling, hope, hate, love, all shift and change under the pelting forces of infinity, wear out and die.

The mind, being generated in and occasioned by matter, is necessarily under the same necessity of mutation as are its elements, and is therefore never the same for any length of time. Body and mind grow like the plant and decay like the leaf. There is no denying the self-evident truth of these propositions. Modern science has been able to do no better than to reassert the truth of Guatama's premises, urging the basis of observation and experiment for its vindication. But common justice should spur us to credit Gautama with basing his conclusions on observation at least, if not on experiment. If there are gods, argues Gautama, they are not without the Law, for if change is necessary and universal, all beings sentient and insentient must fall within its realm.

This much certain, what, then, is immutable, what permanent? The answer suggests itself. Nothing. And here we are brought sharply to the rock of Buddhism. If all things are impermanent, all things illusory, the unchanging and unchangeable Reality must partake in no way of the properties of things. The reality, therefore, cannot be called a *thing*. It cannot be called a state, because state implies something in statu. Nor can we escape the difficulty by saying the Reality is Being. Being, Existence, posits something that endures. Now nothing endures, but all things waste. How then may we express the Immutable, the Real, the Permanent?

To answer this question Gautama leads us to Nirvana, or Niruana. No philosopher has been subjected to more ignorant and more incompetent criticism than the sage of Kapilavastu. The doctrine of Nirvana has been denounced by unthinking, and uninformed persons as annihilation, extinction, nothingness; not, it is true, in the sense conceived by Gautama, but in a sense that itself illustrates Gautama's principle. Men have generally believed that the soul survives. Now Gautama precisely denies the existence of a soul. Numerous passages in the Tripitakas might be brought forward to prove that Gautama rejected the theory of a soul and made it clear that he did so. "While man's body remains," says Gautama, "he will be seen by gods and men, but after the termination of his life he will be seen by neither gods nor men."

Hence, Nirvana is not, as it has been called by some culpably unknowing persons, "the Buddhist Heaven." So far as man's desires, pleasures, happiness, bliss, life, consciousness, or psychic continuity are concerned Nirvana, according to Gautama. is, indeed, extinction. But to say that there is no Reality, which may not be expressed in terms that are not intelligible to man's intellect, is to say that man's intellect is omniscient. The difference between Buddhism and all other religions and religious philosophies is that there is not in Buddhism one single anthropomorphic idea. Perhaps this is true, because Buddhism knows no God. It is the only godless so-called religion that has ever existed, and for that reason it may be incontestibly maintained that this system is not a religion at all, at least if we speak only of Gautama's doctrine undefiled by the corruptions of post Buddhist degenerates. Nirvana, according to Gautama, is finality. It is the evanishment of change, sentiency, matter, illusion, thought, life, feeling, all that is present in the consciousness of man. To reach Nirvana one must destroy the illusions of sense, must break down the structure of consciousness upreared by all that has gone before, must undo the results of the processes that have made man all that he is. The Relative cannot know the Absolute: the Absolute cannot be expressed in terms of the Relative. When the Relative ceases the Absolute remains, and that is Nirvana.

There will be occasion in a future section of this book to point out the similarity of the doctrines of modern idealism to the doctrines of Gautama. Before leaving the subject here let us glance at the fundamental concepts of Buddhism with relation to these processes by which the finality is reached, pointing out, at the same time, the weakness of the system and the break in the sequence of Gautama's reasoning.

The mechanism, by the operation of which man is carried upward on the way to Nirvana, is explained in the law of Karma and transmigration. The latter process has been described by the word metempsychosis, but the use of the Greek term is inaccurate. In the Buddhist plan there is no soul. Transmigration was not original with Gautama. This doctrine was taught in India long before his time. It is found likewise in Egypt prior to the Sixth Century before Christ. But its relations with Karma are purely Buddhistic. Briefly, the operations of the great law may be described in this way: As all action moves to new action (causation) any given state is the direct effect of the just previously existing state. Man, that is, individual man, is an aggregate of mental and physical qualities which Spence Hardy describes as follows: "The first group, material qualities, are like a mass of foam, that gradually forms and then vanishes. The second group, the sensations, are like a bubble dancing on the face of the water. The third group, the ideas, are like the uncertain mirage that appears in the sunshine. The fourth group, the mental and moral predispositions, are like the plantain stalk, without firmness or solidity. And the last group, the thoughts, are like a specter or magical delusion." Of all these groups, there is none that endures.

Any individual aggregate, i. e., any individual man, is the effect, or the sum of the effects of all the individual aggregates in the chain of transmigration. Karma is the force-product of good and evil doing. It is not that a *soul* passes from one body into another body the qualities and environment of which have been adjusted to the reward or punishment the soul has earned in its former life. This is a totally mistaken concept of Karma. *There is no soul.* The man in his present life does good or evil. He dies and the effects of his conduct are immediately seen in a new organism generated by that conduct and upon which are concentrated all the forces spent by its predecessor. This new individual has no more in common with the individual that has died than has a child with its parent. It is the inheritor of its predecessor's moral fruits, reward or punishment, but it has no more identity with its predecessor's consciousness than has any animal with the consciousness of its parents. Like will produce like. The being that suffers, suffers because its Karmic progenitor did evil in the world. If it enjoys, this is so because its Karmic progenitor was righteous. Rigorous and inflexible is the law. There is no escape from reaping in kind that which was sown. Sorrow exists because of wrong doing. Individuals pass down to new individuals not only their own Karma, but the sum of that of all the individuals that have gone before, and which was inherited by them in like manner. Desire, the passions, love of life, but stimulate fresh and frequent births. He that would avoid suffering, let him accumulate good Karma.

But while Gautama counsels virtue and righteousness as a means of escaping suffering and sorrow, he none the less points out the futility of all life, even that most blessed with happiness and joy. The fairest life is, after all, life only, and so long as life clings there must be ever a residue of woe, ever a recurrence of birth. It is true that, at last, in the perfect Pari-Nirvana, there shall be no longer life of any kind, neither joy nor sorrow, love nor hate, pain nor pleasure, but the process may be hastened for the individual, and hence for the race, by right living. The chain of individuals forged by Karma may be broken by ridding one's self of the "thirst" for life. This is done by the Buddhas, those strong men who, losing the lust for life, emerge from the net of circumstance, and making no new Karma, approach or attain to Nirvana even in this world. Such are the Arahats, men who have conquered life and death and have become, in very fact, non-existent so far as human conception of existence can go.

The law of Karma is an inscrutable mystery, and it is here that the system of Gautama fails. No clear exposition of the law can be given. The Buddhist psychology is rational enough; the premises of the system cannot be denied. Nirvana may be interpreted as that reality underlying phenomena, the Immutable that remains when the mutable, the illusory, has passed away. But the doctrine of the force of Karma leaves us with no corresponding conception. It is an unthinkable mystery, hence has no warrant in reason. We can conceive of like producing like, of the reaper reaping what he has sown, but the point of contact between the reaper and sower in Gautama's law of Karma is wholly left out of the account. It is nigh incredible that he himself was not aware of this; or it may be possible that like many other philosophers, with a system, he had not that high heroic courage (the most admirable characteristic of the modern scientific investigator) to fearlessly confront himself with the undemonstrated point of his theory, and to abide by the result of the judgment.

It is only of late years that Gautama's system has been criticized with reference to the modern theory of an universal process. Upon his lofty system have been fastened the degrading ceremonials of a creed. The new Buddhist cult in the West is based upon an ignorant and totally inadequate conception of Gautama's philosophy, a conception in its way as superstitious as that of the Hindu who degrades the Buddha by making of him a Deity. His rightful place in the history of philosophy will be accorded to him when the Buddhist books shall have been fully translated by competent scholars.

Contemporaneous with Guatama in India there lived Confucius in China. Confucius, or K'ung-fu-Tsze, was born about 550 B.C. Of his life much has been written; of his philosophy little remains. His teachings were political and ethical. Confucianism concerns itself solely about the physical well being of man and the right conduct of man and of the state. The venerated Chinese teacher was, like Gautama, of noble if not royal extraction. His ancestry was very ancient and he was unquestionably patriotic. He began his public ministry at the age of 23, and was impelled to reform the conduct of his countrymen by the observation of the fact that public and political morals had lapsed from their former high state. His maxims are all based on the social necessity of virtue. He sought, and apparently found, to the satisfaction of his followers, a physical basis for ethics. Speculation as to the origin and destiny of things was to him an idle pursuit. Once, when one of his pupils flatly questioned him as to his belief concerning the possibility of immortality, Confucius readily replied: "So long as you cannot comprehend life, how can it be that you can hope to know about death?" The motive contained in these words is clear in all of his teachings.

The corrupt state of the Government drew his attention to politics, but to reform the state he chose the indirect method of first reforming the individual. His system examines the relations of the individual to the state and, although his work, "Ta Hioh," suggests an inquiry into the causes of things, he did not philosophize in that direction, but rather confined himself to maxims and precepts. These are ethical mainly. Confucius is best and most widely known by his world-renowned precept, which was afterward taught by Jesus. The latter used a positive, the former a negative, form of expression. "Do unto others," said Jesus, "as you would have others do unto you." Said Confucius: "Do not do unto others that which you would not have others do unto you." The lesson is precisely the same.

Confucius was made a magistrate and died full of worldly honors at the age of 73. His descendents were given offices of high distinction and his memory has been reverenced by royal monuments. During his ministry the Chinese teacher had a large following, which at one time numbered not less than 3,000.

The attempts of the Persians to explain the origin of the universe are found in the Zend-Avest, scriptures attributed to Zoroaster. Of the life of Zoroaster little is known. His very existence is in dispute and the date of his time uncertain. By some it is claimed that he lived prior to twenty-three centuries before Christ. Plato, who was by no means uninformed regarding the East, speaks of Persia as having an indefinite antiquity. In the first Alcibiades, treating of the education of Persia's royal sons, he says: "At 14 years of age they who are called the royal preceptors take the boy under their care. Now, these are chosen from those who are deemed most excellent of the Persians, men in the prime of life, four in number, excelling in wisdom, justice, temperance, and fortitude. The first of these instructs the youth in the learning of the Magi, according to Zoroaster, the son of Oromazes, and likewise in the art of kingly government." Dr. Haug, in his "Lecture on an Original Speech of Zoroaster," gives an antiquity to the Persian sage that is startling, and all other authorities do the same.

Dr. Haug, in his lecture (Trubner & Co., London, 1865), quotes Diogenes Laertius, who states that Xanthos, of Lydia, 500 B.C., affirms that Zoroaster lived 6,000 years before the invasion of Greece by Xerxes. Pliny, on the authority of Aristotle, fixes the date at 6,000 years before Plato, and Dr. Haug uses Pliny again to show that Zoroaster preceded Moses by some thousands of years. The historical value of these evidences may be questioned. The point at issue with many of the writers on Zoroastrianism, is the priority of the Zend-Avest to the cosmogony of Moses. The very recent archæological discoveries of records on Babylonian bricks leaves no doubt as to the parallel of the Mosaic account with that of the Persians. The speculations of Zoroaster on the origin of things will be familiar to those who are acquainted with the book of Genesis. Dr. Haug has satisfied himself that the founder of Magism preceded the founder of Judaism and comes to this conclusion: "He preached, like Moses, war and destruction to all idolators and wicked men, and said that he was commissioned by God to spread the religion of Ahura Magda. During his life time and shortly after his death his followers seem to have engaged in incessant wars with their religious antagonists, the Vedic Indians, which struggle is well known in Sanskrit writings, as that between Asuras and Devas. Zoroaster was the first prophet of truth who appeared in the world and kindled a fire which thousands of years could not entirely extinguish."

The philosophy of the East has been seen to be inseparable from religion. In Egypt philosophy entirely disappears in religion. The Greeks are said to have borrowed from the Egyptians. Nevertheless, it is to Greece we must go to find philosophers whose speculations were free from all theological influence.

THE EARLY GREEKS

In whatever manner Greece may be indebted to the speculation of the Orientals, there can be but small doubt that Thales was an original thinker. In him we find the germ of European philosophy. With him begins the movement that, running through all the schools until it produced a Socrates, a Plato, and an Aristotle, lost itself in the bizarre systems of the Alexandrian schools.

Those who came after Thales were, naturally enough, more adept logicians, keener observers, readier systematizers. Thales was no epistemologist, but his was the first Greek mind to rouse itself to inquiry and to at least suggest those questions that made Greek thought possible.

He was born at Miletus, in Asia Minor, about 640 B. C., whence he and those who came directly after him, have been called the Milesian school. Again, they have been called the cosmologists, and again the physicists. Divisions of history are at best arbitrary and never accurate. There are no epochs or ages or periods. Such exist only in the imagination, and are used for convenience, but too often they serve as a means of confusion instead of as instruments of elucidation. The growth of thought, as the growth of a plant or an animal, is a continuous process. And although Professor Draper is over careful in dividing the history of Greek intellectual development into ages of inquiry, faith and reason, there seems to be as little purpose therein as in other divisions of Greek philosophers into cosmologists, anthropologists, and systematists; physicists, mathematicians and metaphysicians.

Cosmologist or physicist, Thales struck out boldly to erect a theory of things, and the fact that his conclusions, in particulars, are absurd when regarded in the light of scientific truth, never can withhold from him the praise that is his unquestionable due. What we know of Thales' life is little. It is said that he was of Phœnician origin and of noble birth, and that he had been at one time deeply concerned with affairs of the state. He is said to have been active as a politician, and he is said to have not been a politician. He is said to have been a solitudinarian, and not to have been such. He is said to have derived his cosmological theory from Egypt, and not to have done so. He is said to have been known to Aristotle, and this is denied because, it is pointed out, he was not known to Plato.

That Thales came into contact with many strange people there is no doubt, for Miletus was the most prosperous and most commercial of the Greek colonies, and enjoyed an extensive shipping. That he traveled in Egypt is also clear, for it is related that he told the Egyptians the height of the Pyramids by the extension of their shadows. He was a mathematician, too, and, if the story related of his having calculated the solar eclipse of 585 be a true record, which is doubtful, he was a proficient mathematician. He escaped extinction during the invasion of the Persians in the middle of the Sixth Century, but there is no record of his death.

If we lack much that would be of interest in the life of Thales, we are more fortunate in the possession of something definite concerning his thought. This has come down to us in a few fragments, but from them we know that the founder of the Ionic school proposed to himself for answer an unanswerable question. He sought the ultimate *qualitative* analysis of matter. All things are transformed, one into another. But if this be true, there must be one abiding substance into which all forms can be resolved, out of which all forms can be synthesized. This proposition assumes the monistic principle of existence. Thales busied himself with the observation of such natural processes as lay open to his view. He watched the growth of animal and vegetable life. He observed the seasons and the sea. One fact impressed him. He saw moisture everywhere. A dessicated seed was nourished and sprang into life through the influence of moisture. Without moisture life was impossible. His problem was primal matter. What should it be but water? Water, then, in Thales' opinion, was the element to which all forms of being could be reduced, out of which all sprang.

The Greek word 'σρχη has been rendered as Beginning and as Cosmic Matter. Thales' philosophy certainly presupposed the existence of water as prior to all beginnings and, as a thing cannot begin of itself, we are forced to the conclusion that water, or moisture, was believed by him to be the uncaused cause and the material likewise. Thales believed in gods and devils, but he had no conception of a creative God, or of a cause other than the primal matter. He believed that gods propagated much after the same manner as animals and men, but gods themselves were mere parts of the universal process, and had their origin in water as had all other beings. To say that Thales labored in the slightest degree under the influence of theology would be to state a glaring untruth. The gods are an insignificant incident in his philosophy. They occur to him as one of the forms into which his cosmic matter is transformed to be re-transformed, as in the case of other categories. If Thales is not an atheist in what might be the ancient understanding of that word, he is certainly not a Theist in the modern way of thinking.

In detail the philosophy of the first Ionian is calculated to excite a smile in the light of our larger knowledge. But his main conception is noble, and he had present in mind, and clearly stated it, the theory of Differentiation. That theory is accepted now as cousin to the self-evident and undeniable by some of the most eminent of modern scientific thinkers. It was not new when Thales announced it; it is by no means proved now, and the difference between the opinion Thales entertained and present day opinion is that the one specified water as the *simplex materia,* whereas the other does not know.

Anaximander was a disciple and a friend of Thales. He was born in the first quarter of the Seventh Century before Christ, and gave his attention among other things to a deep study of mathematics. He is said to have been the first man to invent a geographical map, and he is also credited with the ingenius origination of that very useful thing, the sun dial. Both of these assertions are denied. He was used to visit the court of Polycrates, the tyrant of Samos, where Pythagoras is also said to have visited.

Anaximander did not profit largely by contact with Thales. His mathematical mind, given to abstractions, was in no wise receptive of the doctrine that water was the origin of all things. He used the word ’αρχη to describe the principal matter of his master. How can water be the *resolvent* of all things, he asked, when water itself is a thing? This simple question, at one coup, tumbled the theory of the first Milesian into a heap of ruins. But let it not be forgotten that while Anaximander, with one wave of his hand, swept aside Thales’ conclusion, he accepted, in all sincerity, the tremendous importance of Thales’ first principle. There must be a simplest matter. What is it, then? Anaximander answered, “The Infinite.” What Anaximander meant by the infinite has puzzled many commentators, but if we remember that he was opposing the

Thalian theory of water, there will be no difficulty in understanding him. Anaximander cancels, one after another, all the forms assumed by the primordial matter. What is left is the common term in which all forms can be expressed. But this is a mere verbal trick, a kind of prestidigitation with logic. It leaves us precisely at the point from which Thales started out. It is a restatement, in a roundabout way, of the master's first conclusion. Anaximander goes on to speculate about the infinite. His philosophy is a strange mixture of materialism and mathematics—abstractions that begin nowhere and lead anywhere.

Another native of Miletus whose name is always mentioned with that of Thales is Anaximenes, who was born about the same date as Anaximander. Anaximenes gave much of his attention to astronomy, and he is given the credit of having discovered the obliquity of the ecliptic. To him the Water theory of Thales was too limited. Water was a tangible, visible object. A more universal element of elements must be found. Anaximenes could think of nothing better than air. One breathed air. Hence air was life. Air, too, was far more mobile than water. It was more elastic. The expanse of the ocean was contrasted, not to its advantage, with the expanse of the atmosphere. It was clear the air reached up to and even surrounded the stars. There was no limit to it. It was infinite. The earth, itself, he said, floated in the air like a "broad leaf." Who could say that the air could not be, under certain conditions, ignited? This would account for the comets, meteors, and other and innumerable familiar phenomena. To the mind of Anaximenes the matter was proved. Snow, rain, hail, heat, moisture, life, all came out of the air and into air returned.

This was all Anaximenes did for philosophy. The service is a questionable one, and is utterly valueless when compared with that rendered by Anaximander, for he, to say the least, removed the absurd conclusion of Thales, while Anaximenes only replaced it with one equally absurd.

Diogenes of Apollonia was born in the town of Crete whence he derived his generic appellation. He lived somewhat later than Anaximenes. Diogenes may be compared with Anaximander in that, although he rejected Thales' theory of water, he supplanted it with nothing but a mere word. He agreed with Anaximenes' thought that the air was at least the proximate source and substance of all things, but the ultimate air was Psyche, the principle of life, informing and causing all things, *Soul*. Now these are mere words, and represent nothing definite. "Soul," (in the Greek sense), "Principle of Life," "Vital force," "Animating power," all such are phrases of which no clear concept is possible to the human intellect. They are used to-day by the uncultured in the selfsame way, with the selfsame purpose as the Cretan philosopher used them. Ask that man who refers the phenomena of life to the action or presence of a "Vital Principle" for a definition, and the definition will be a simple periphrastic elusion.

Anaximander abstracted all things and called the abstract 'αρχη the infinite. Diogenes of Apollonia called it the Soul, ψυχη, which was seized through the air, its vehicle. Thus far, Thales stands alone, pre-eminently the Greek who placed high the target at which all were to shoot. He had missed the mark himself, but his followers do not seem to have been more expert marksmen.

Anaximander in his speculations on the Infinite clothed it with many attributes or properties, among that of "The Divine." From that time to this no more highly philosophical conception of deity has been suggested. The predication of divinity in the Infinite was a protest on the part of the Milesian against the popular polytheism. If there must be a god, let there be one. However, it would be unfair to Anaximander to say his conception of the Infinite was theological. We may now glance at the philosopher who logically follows Anaximander, Xenophanes, the leader of the Eleatic School.

The primordial matter of Thales we find changed in Xenophanes, into an infinite, intelligent eternal, immutable, omniscient God. He was the first Greek theologian. The Source of Thales, the All of Anaximander, the Vital Principle of Diogenes, became the intelligent God of Xenophanes. The founder of the Eleatic School was born in Colophon, but fled thence from the Persians, who overspread Ionia. The date of his birth is usually fixed at about 570 B. C. He was a gnomic poet, sang his thoughts in the form of verse-maxims, a vehicle not too well suited to the refinements of metaphysics, but admirably instrumental in conveying the message Xenophanes brought. He traveled from city to city, singing as he went, and earning his livelihood in this manner. His place of birth had long been noted for its production of poets, and it may be imagined that he found many to listen to him, for the Greeks were fond of hearing what men had to say, but probably few who profited by his teachings. He found a resting place in Elea, the city which gave to his school its name.

Xenophanes was a poor man, despised riches. Had he enough to support life of the simplest fare, a place to lay his head, and decently appearing clothes, these were sufficient. Xenophanes saw around him a polytheism which, to his mind, was hideous and unworthy the state of man. The gross anthropomorphism of the Greeks was repulsive to his thought. He saw men worshipping idols in which they trafficked. He saw implements and utensils used in religious ceremonies bought and sold. The product of the hand of a base smith, purchased with dross, was, after some mummery had been pronounced upon it, a holy thing. There were gods to suit the tastes of the most fastidious displayed in the god-market and exposed for sale; gods upon whom vile men hung every passion and crime. The Colophonian swept the whole nauseating mass away and replaced it with the one, pure, unmoved and immovable, eternal Intelligence.

Xenophanes was no such philosopher as selected his pupils and taught them privately. He was a reformer, really more religious than philosophical. He lost no occasion of bitterly and fiercely denouncing the polytheism of his time and people. He hated from his innermost core the faith of the Greeks. His conception of God was as radically different from the prevailing beliefs as it could be. He preached his doctrines from the housetops and at the doors of the temples. He taught all men. Xenophanes found no words too harsh to say of Homer. In this respect, as well as in respect of the polytheism of the Greeks, he was fanatical.

To us the beauty of Greek mythos and fable, of the gods and demigods, and the heroes, is incomparable. Homer is the poet of poets. The inspiration of Greek art, of Greek poetry, of Greek architecture, is the inspiration of the art, poetry, and architecture of to-day. Phidias and the Parthenon are ours. The staves of Homer, chanted, as we may see if we look closely into the hexameter, in a sort of quasi rhyme, won the hearts of the people. These told in melifluent words the story of Greek gods and Greek heroes. Nations worship their own gods and their own heroes. The very maximum and ideal of the godlike and heroic pulsate in the verse of Homer. But to all this Xenophanes was blind. He had no patience with men who could accept the fancies of a wandering stave singer as the eternal truth. We must not forget that the Greek view of the *deus ex machina* was not same as ours. With the Greeks it was faith. They looked up to these gods and prayed to them. What wonder, when we find the poet Swinburne, even in these days, regretting that Olympus is bare?

The Eleatic denounced Homer as vicious, railed at the gods, poured vituperation and vitriol upon those who believed on them. The anthropomorphic theology he holds up to scorn by saying that had oxen and horses hands like ours, then they would make their gods like oxen and horses. The gods of the Ethiopians were black and flat-nosed; those of Thrace ruddy and azure-eyed.

Having conceived, or thought he conceived, his own god as impersonal, imperishable, unchangeable, infinite, he called attention to the vilely anthropomorphic belief that a god could beget a son. This notion was abhorrent to him. God can be, he taught, like unto man neither in body nor in spirit.

Xenophanes lived to be near a century old. Had he been satisfied with the monotheism he first taught, he had done well. But, having cleared the ground of the changeable and man-like gods of the Greeks, he could not withstand the temptation of speculating on the attributes of his own. God was perfect. Therefore his form was spherical. This has been held to have been a figure of speech, and it probably was. But Xenophanes, perhaps by way of reaction from the intensity of his feeling, at times doubted everything, and it has been made out that he was the germ of the skeptics, an opinion not to be sustained by a study of most of those who have written with learning on his philosophy. The thought that reason, after all, may be unable to unlock the secret of things, is not precisely scepticism. And it appears that thus far only did Xenophanes go.

Contemporary with and a disciple of Xenophanes, was Parmenides, who was born about 536 B. C. Parmenides was the son of a rich and powerful family. In his youth he had all the temptations of his time and climate to lead a purely physical life. It has been said that he was not insensible to these allurements, and that he had been dissolute and worldly. Yet when his attention was drawn to the serious and noble concerns of men, and especially to the pure and lofty delights of the intellect, he readily forsook the evanescent pleasures of the commonplace and gave himself up unreservedly to the sober study of philosophy. The pupil of the Eleatic poet-philosopher conserved his thought and did not seek to thrust his views upon all comers. He stopped short of his master's godhead. He believed, like Xenophanes, in the One, but he pursued the doubt that Xenophanes had left behind further than his master cared to or could. The hinges of his philosophy turned on two points. The concrete (material of opinion) he regarded as changeful, impermanent, and uncertain; the abstract (material of reason) he regarded as eternal and true. He was not unacquainted with the Pythagoreons; had, indeed, come into contact with the Pythagorean Society, and he was mathematical. He had not remained unimpressed with the early philosophy of the physicists; and he was materialistic.

To satisfy these two demands of his mind he proposed a dual principle, the rational and the sensational; the one pertaining to logic, the other to experience. But he rejects the value of the senses on the ground that inasmuch as no two individuals have the same sense experience, all evidence based on the testimony of sense is worthless. The Rational was invariable in men: Therefore the Rational alone was truth. The One of Xenophanes he called Being, not God. The One with Parmenides was finite. Xenophanes believed that God was infinite, but his reason failed to verify his faith. Parmenides went further and taught that Being was definite, limited. His concept of it was spatial as well as in relation to time. It was a perfect sphere, homogeneous and sufficient for itself.

Zeno, of the Eleatics, was the friend and disciple of Parmenides. He antedated the more noted philosopher of the same name who founded the famous school of the Stoics, and must not be confused with that distinguished Greek. Zeno, who is said to have been adopted as a son by Parmenides, defended rather than developed, the teachings of his master. He was native to Elea, and is regarded as one of the most disinterested if not original thinkers of ancient Greece. He had the good fortune to grow up under the supervision of his mental foster-parent and never cultivated a taste for those pursuits followed by the wine-drinker and the voluptuary.

The short account we have of Zeno's life is yet sufficient to present his character and personality to us with a vividness that is almost startling. The story is not lengthy, but is a thrilling one. Bred in the cool, shady solitudes of his colonial home, he cultivated pure thoughts, pleasant and simple manners, and sought an evenly balanced mind. He was contemplative and yet not insensible to the life of the world around him. Beneath his calm philosophical exterior, however, there lay the infinite force of a volcano. His tragic death has no parallel in history. Zeno was the inventor of Dialectics, and his philosophy marks a long step in the advance of Greek thought. But to those who prefer political to scientific history, the interest that attaches to Zeno will ever center about his biography.

Philosopher though he was, Zeno was possessed of an intense affection for Elea, the city of his nativity. This localization of pride lies at the root of all patriotism. The patriot loves his home, his birth-place, his country. Zeno loved Greece, too, but he was not attracted by Athens. In Elea he found the rest, the placidity, the quiet that were most grateful to his disposition. He visited Athens many times, and undertook there to teach something of Parmenides' philosophy, but his homecomings were always a source of great satisfaction. The life at the capital hurt his fine sensibilities. There he saw the bold face of sensuality or discerned beneath an over-polished surface the corrosion of licentiousness. The heterogeneous crowd, the eagerness for new pleasures, the evidences on all sides of satiety and jaded passion, the brilliance, the noise and the hollowness of it all weighed upon him heavily, and when he returned to Elea he did so glad to leave Athens behind. He was not so self-centered but that he could be pleased by honest praise and pained by objurgation. Once when twitted with this sensitiveness to blame, he is said to have replied: "If the blame of my fellow men did not cause me pain, their approbation would not cause me pleasure."

Zeno, as we have seen, was a patriot. When Greeks were striving, and successfully, too, to liberate themselves from their Persian conquerors, and the flame of liberty was leaping in every Grecian heart, the Elean philosopher could not withhold himself from participating in the struggle, and threw himself into it with all his strength. That his influence was powerful there can be no doubt. The history of modern philosophy gives us many similar examples of the combination of love of country and love of truth that we find in Zeno.

His political work took him frequently from his retreat in Elea. On his return to his beloved city, just before his death, he found the people terrorized by the rule of the tyrant Diomedon. Zeno was not long in forming plans for the overthrow of the ruler, but unfortunately he was detected. Diomedon ordered the philosopher brought before him. Zeno, calm in his mind, courageous in his patriotism, faced the tyrant without fear. Questioned as to the names of the men who had been associated with him in his conspiracy, Zeno replied by specifying all of Diomedon's friends and supporters. Turning to the people about him, he said: "If you are content to be enslaved for the fear of what you now behold, I am amazed at your cowardice." To emphasize the situation he then bit off his tongue and spat it into the tyrant's face. He was cruelly punished for this astounding performance by being beaten to death. The manner of his punishment is not certainly known. But the example he gave was not wasted, for it is said that the Eleans rose up against Diomedon and slew him.

The patriot-philosopher founded no system. He accepted the philosophy of his master without criticism or change, and so favorably did he regard it that he was at the expense of founding a new organ of reason to defend it. M. Cousin says of him: "Zeno's purpose was purely polemical. To the outside world he was the politician, dying a tragic death; in the world of his thought the dialectician." To prove the truth of the Parmenidean philosophy, he exercised all the skill of his ingenious intellect. He suggested the indivisibility of matter with his celebrated example of Achilles and the turtle. But the trick of logic he uses in that proposition was exposed by

Aristotle. Zeno is remembered for the subtlety of his logic and the grandeur of his patriotism, rather than for his doctrines, which are neither original nor profound.

Few names in the history of Greek philosophy are given more prominence than that of Pythagoras; and few philosophers have been so variously interpreted. He is claimed by mystic, mathematician, and theurgist equally as their own. Yet Pythagoras left no writings by which his system may be judged or known. Such early Greeks as Plato and Aristotle make no mention of works to be directly attributable to the founder of the Pythagorean school. They know only what was taught by the Pythagoreans. More than a dozen dates are given for his birth. He seems to have been a contemporary of Anaximander. But if we strike an average he would appear to have been born about 580 B. C., at Samos. The Pythagorean Society made its appearance toward the end of the Sixth Century, and the body of doctrines which custom attributes to its founder is made up of those precepts and theories taught by his followers.

Pythagoras is singular among all the Greek philosophers in that he was regarded as descended from gods. He was a worker of miracles. Not only was the well-worn wonder of speaking in many tongues at one and the same time accredited to him; this was commonplace; he was even known to have appeared in several distant places simultaneously, and superabundant evidence is advanced to prove the case. In this respect he was the prototype of Apollonius of Tyana, who will engage our attention at another time. His wonder works lack no detail of testimony. His miracles, like those the prophet of Khorassan proposed for his dupes, were "seen, heard, attested, everything but *true.*"

After journeying to many places, among them, it is asserted, Egypt, he settled in the wealthy and aristocratic city of Crotona, and there founded his school. His way of teaching was new to the methods employed hitherto by the Grecian masters, and it is this, together with some of the mystic doctrines of his school, that has led to the classic controversy as to how much of his system he owed to the Egyptians.

That Pythagoras visited Egypt is admitted. That he was given entree by the priests to the temples and to the mysteries of the temples is controverted. The authorities are divided. Some dismiss the assertion that Pythagoras was not thoroughly imbued with Egyptian doctrine as idle. Others are quite as certain that a stranger, as Pythagoras was, could never have found his way to the sedulously guarded secrets of Isis. Yet when we regard the glamour that is thrown around the character and personality of Pythagoras, we cannot but believe that those who hold to the Egyptian theory are in the right. The very person of the philosopher was sacred. He is said to have once shown his initiates a golden thigh, to prove his Apollonian descent. He is said to have been the son of Mercury. Fable has been as busy with him as with any other human being who was saint or god in disguise. In his philosophy, to which we will presently call attention, are found many perfectly Asiatic doctrines; doctrines foreign to aught that had as yet entered into the minds of the Greeks. The many wonders related of him, the fear in which he was held, the supreme devotion of his followers, his great political power, and, above everything else, the arcanian plan of his school with its initiates and neophytes, all are calculated to sway the judgment in accepting the belief that he was at least an enthusiastic imitator of the East, for his own purposes, if not a believer in and a teacher of its mysteries.

To account for Pythagorean familiarity with the lore of the Egyptians and to answer the objection that a foreigner would hardly be accepted as a neophyte by the priests, a story is told of the manner in which the Greek gained his knowledge of the secrets behind the veil of Isis. In the time of Pythagoras, Amasis was the King of Egypt and Polycrates enjoyed the friendship and esteem of the monarch of the Nile. To Amasis Pythagoras went, armed with a request from the Greek ruler to the Egyptian King to provide the bearer of the message the means of learning the wisdom of the hierarchs. Hierarchs indeed they were, for the visitor found to his regret that even the signet of the King had not sufficient power to unlock the doors of the adytum. The priests to whom Pythagoras applied, commended him to Thebes with the artful suggestion that the Theban mysteries were of greater antiquity. It was at Thebes that Pythagoras was successful in his quest. After a stay of nearly the fourth part of a century, under the tuition of the Theban priests, Pythagoras returned to bestow upon his selected disciples the wisdom he had absorbed at the fountain of ancient source. But all this is improbable.

The Pythagorean school, unlike all the other schools of Greece contemporary with, before, or after its time, was an organization. Its doings were secret. To gain admission to its benefits the applicant was required to go through a lengthy term of probation and trial. Before he could approach its mysteries he must purge himself of all the baser instincts. The inner temple was sacred; those who approached its holy of holies must do so with purified hearts and unshod feet. The novitiate was sentenced to five years of preparation, in which he was not permitted to open his lips in speech. Fasts or physical privations of a severe kind were not prescribed, but the mind of the neophyte must be prepared carefully, and perfect control of self attained before even the vestibule of the temple was opened to him.

The initiations were of several degrees. In the last degree the candidate was brought face to face with the living flame of truth. What that truth was no Pythagorean ever told. Such philosophy as we have of the Pythagoreans is the philosophy that was told to the outside world. There were two bodies of doctrine, one taught and known to the initiates, the other taught to the world at large. The latter has come down to us, and is by no means clear. The exoteric teaching was supposed to have been allegorical of the esoteric. If so, it is an allegory so fine spun and so involved that it might as well have been left unsaid.

Much wit and wisdom has been wasted on attempts to decipher the jargon of the Pythagorean mysteries. The doctrines have been "explained" time and again, and few of the exegetists can strike an agreement as to precisely what the Pythagoreans believed or did not believe. The Great Arcanum was well preserved. The secrets of the Society were never betrayed. Yet all this mystery and secrecy becomes perfectly clear if one regards the organization which Pythagoras founded as a *secret political society*. Pythagoras was indisputably a philosopher; but he was also a politician and, as there are the best of reasons to believe, a politician of unbounded ambition. Sir Edward Bulwer Lytton, a high authority on all questions of ancient and modern mysticism and magic, presents a view of Pythagoras and his purposes adequate for all but the emotional or superstitious. In his "Athens, Its Rise and Fall," he speaks of Pythagoras in the following paragraphs:

"Pythagoras arrived in Italy during the reign of Tarquinius Superbus, according to the testimony of Cicero and Aulus Gellius, and fixed his residence in Croton, a city in the Bay of Tarentum, colonized by Greeks of the Achæan tribe. If we may lend a partial credit to the extravagant fables of later disciples, endeavoring to exact from florid super-additions some original germ of simple truth, it would seem that he first appeared in the character of a teacher of youth, and, as was not unusual in those times, soon rose from the preceptor to the legislator. Dissensions in the city favored his object. The Senate (consisting of a thousand members, doubtless of a different race from the body of the people, the first the posterity of the settlers, the last the native population) availed itself of the arrival and influence of an eloquent and renowned philosopher. He lent himself to the consolidation of aristocrats, and was equally inimical to democracy and tyranny. But his policy was that of no vulgar ambition. He refused, at least for a time, ostensible power and office, and was contented with instituting an organized and formidable society, not wholly dissimilar to that mighty Order founded by Loyola in times comparatively recent. The disciples admitted into this society underwent examination and probation; it was through degrees that they passed into its higher honors, and were admitted into its deeper secrets. Religion made the basis of the fraternity, but religion connected with human ends of advancement and power. He selected the three hundred who at Croton formed his Order, from the noblest families, and they were professedly reared to know themselves, that so they might be fitted to command the world. It was not long before this society, of which Pythagoras was the head, appears to have supplanted the ancient Senate and obtained the legislative administration. In this Institution Pythagoras stands alone; no other founder of Greek philosophy resembles him. By all accounts he also differed from the other sages of his time in his estimation of the importance of women. He is said to have lectured to, and taught them. His wife was herself a philosopher, and fifteen disciples of the softer sex rank among the prominent ornaments of his school. An Order based upon so profound a knowledge of all that can fascinate or cheat mankind could not fail to secure a temporary power. His influence was unbounded in Croton; it extended to other Italian cities; it amended or overturned political constitutions; and had Pythagoras possessed a more coarse and personal ambition, he might perhaps have founded a mighty dynasty, and enriched our social annals with the result of a new experiment. But his was the ambition not of a hero, but a sage. He wished rather to establish a system than to exalt himself. His immediate followers saw not all the consequences that might be derived from the fraternity he founded; and the political designs of his gorgeous and august philosophy, only for a while successful, left behind them but the mummeries of an impotent free masonry, and the enthusiastic ceremonies of half-witted ascetics.

"It was when this power, so mystic and so revolutionary, had, by the means of branch societies, established itself throughout a considerable portion of Italy, that a general feeling of alarm and suspicion broke out against the sage and his sectarians. The anti-Pythagorean risings, according to Porphyry, were sufficiently numerous and active to be remembered long generations afterwards. Many of the sage's friends are said to have perished, and it is doubtful whether Pythagoras himself fell a victim to the rage of his enemies, or died a fugitive amongst his disciples at Metapontum. Nor was it until nearly the whole of lower Italy was torn by convulsions, and Greece herself drawn into the contest as pacificator and arbiter, that the ferment was allayed. The Pythagorean institutions were abolished, and the timocratic democracies of the Achæans rose upon the ruins of those intellectual but ungenial oligarchies.

"Pythagoras committed a fatal error when, in his attempt to revolutionize society, he had recourse to aristocracies for his agents. Revolutions, especially those influenced by religion, can never be worked out but by popular emotions. It was from this error of judgment that he enlisted the people against him; for by the account of Neamthes, related by Porphyry, and indeed from all other testimony, it is clearly evident that to popular, not party, commotion his fall must be ascribed. It is no less clear that after his death, while his philosophical sect remained, his political code crumbled away. The only seeds sown by philosophers which spring up into great states, are those that, whether for good or evil, are planted in the hearts of the many."

In the Pythagorean organization, therefore, Lord Lytton sees only an instrument for the furtherance of a state to be ruled by an oligarchy of intellect, and this opinion is of the utmost value when we remember this writer's keen judgment and knowledge of societies supposed to be founded on an understanding of the hidden forces of nature.

The Pythagorean philosophy—it may not be said the philosophy of Pythagoras, for he did not write a line—is not intelligible to modern thought, if it was, indeed, intelligible to the thoughts of the teachers themselves. Yet it has given us some poetic if not rational conceptions. To that philosophy we owe the sublime figure of "the music of the spheres," a phrase that even to-day is continually used and ever excites our admiration. But what does it mean? The teaching was that the planets in their orbits, swinging majestically around the sun, made music of a kind commensurate with the dignity of these heavenly bodies. For, although the metaphysics of the Crotonians was obscure, their physics was among the most rational system of all the Greeks. They abandoned the geocentric scheme of the world and substituted the heliocentric. They taught that the earth revolved about the sun as did the other planets and, as the circle was the expression in every way of the perfect, the orbits of the planets were circular. The moon was also a planet, and was inhabited by men like terrestrial men, only taller. They assumed the existence of ether throughout space, which would account for the musical rhythm of the spheres. The sphericity of the earth and of the planets, the revolution of the planets in circular (elliptical) orbits about the sun, the assumption of ether throughout space—with these doctrines modern science is at one. But science does not assert these doctrines; it demonstrates them. The Pythagoreans guessed them. It is told of Sir William Herschel, the astronomer, that he said to his sister: "The thought has just flashed upon me that *there is iron in the sun.*"

The occurrence is related merely as an anecdote of the great observer. No astronomer credits Herschel with the true discovery. Spectral analysis has proved that his guess was the truth, but it was only a guess. Dean Swift, in one of his satires, presents us with an inhabitant of Laputa solemnly asserting that two moons attend the planet Mars and giving strikingly accurate details of their relative orbital speed. It was a wild guess, but not even Swift's warmest admirers will deny to Professor Hall the whole credit of the discovery.

Pythagoras did not believe the existence of a God. He taught transmigration of souls, a doctrine that should not be confounded with the Buddhist Karma. The Soul—"Monad"—traversed all the orders of plant and animal life according to the character of its aspirations or its passions.

> Higher than Indra ye may lift your lot,
> Or sink it lower than the worm or gnat;
> The end of many myriad lives in this—
> The end of myriads—that.

If the verses be not a precise statement of the teaching of Gautama, they serve us well to indicate that of Pythagoras. The latter, or at least his school, taught that the soul survived the body, a distinct entity from the body, and was drawn hither and thither by currents of force to unite with new bodies—a kind of chemico-psychic affinity. They also held the now familiar belief that the body changes its substance every seven years. And this suggests the principle by which the Pythagoreans are best known and which is least understood—the principle of Number. With them Number was everything. It was the "principle of all things," a statement that has never been satisfactorily explained. There were seven planets, seven days in the week, seven-year cycles in the body. The septenary had much weight with them; likewise the quarternary. Each man and each thing had its number. The synthesis, if we may so speak, of all things was the One. And each thing was a one in little. The illustration of the triturated stone, in which each particle is likened to the original stone itself as a unit, indicates the Pythagorean concept and the content of the numerical philosophy.

But small benefit can be derived from a study of this metaphysic. It is interesting, however, to know that the Pythagoreans were the first Greek school to advocate general culture. They were taught to perfect themselves in the arts and sciences, to study music, and to experiment with musical instruments; to master mathematics, to sharpen and make wide the intellect; to practice morality and virtue, and to be not as other men were. The ambitions and the great secret society founded by Pythagoras are sufficient to account for his apotheosis by those who came after him.

Of the philosophers who attained distinction as the founders of schools before the rise of Socrates, there remain to be considered Anaxagoras, Heraclitus, Democritus, Empedocles, and the Sophists. The first named was the master of Socrates. He likewise had for pupils such distinguished men as Empedocles and Pericles. Anaxagoras, like most of the ancient Greeks, taught a physics and a metaphysics. For the sake of his philosophy he suffered much privation and, in the end, became stripped of all his possessions. He was born in Lydia, at Klazomene, of a rich and most influential family, and had he turned his attention to politics, might have risen to a high position in the state. But Anaxagoras was a dreamy youth, whose mind was captive to the delights of the intellect. His worldly prospects he spurned and, despising the political ambitions of his associates and the traditions of his family, he left the ignorant city of his birth to seek abroad the knowledge and the intercourse he had not found at home. In Athens philosophy had already found a home and to Athens, Anaxagoras went. It is learned that the young provincial was attracted into the atmosphere of the literary life of the town, and that he came into contact with Sophocles and Empedocles. He read Homer with delight, but as he grew older the more serious concerns of the mind drew him away from the æsthetic and he turned to philosophy.

He looked at the stars, which in such climates as that of Greece, have a meaning they seem to lack in colder skies. Under the influence of their beamy light the mind of the young Greek expanded as if it would grasp them all, and as if it would grow until conterminous with the infinite, great universe. He was rich. His patrimony in Lydia was ample for the gratification of his utmost desires. It is to the eternal credit of Anaxagoras—he a youth from the country, coming fresh into the gay and beautiful metropolis, which invited him temptingly to its warm, fascinating white arms—that he shrank from the revels of the Athenians of his own age and caste, to seek out truth. An aristocrat of his wealth had easy entree to the elite of the Grecian city, and his nights were spent in the company of the ripest and best scholars of the day. He soon constructed a philosophy of his own, and readily found pupils. Athens was thinking, and warmly welcomed all who thought, but enthusiastically welcomed all who thought anew. His most distinguished pupil was Pericles, and Socrates, then young, listened to his words. As he waxed in importance and as his school grew large, he forgot that wealth is not to be despised, even by a philosopher, and so neglected the stewardship of his property.

He was not long in losing it all. Perhaps it is with a touch of bitterness that he charges philosophy with his worldly poverty and credits it with the richness of his soul. But, like most men who fearlessly attack the superstitions of the mob, he learned that philosophy can often pay a more costly penalty than the loss of possessions. He was accused of impiety, of atheism, of blasphemy against the gods, and was brought into court. Tried and condemned to death, his philosophy was not of the heroic stamp that moves its votaries to die. He did not reject the opportunity to escape when, as the story has it, his friend and pupil Pericles opened to him the way. He fled to Lampsacus—to Lampsacus, with its obscene god and its wine-red lusts. It was a bitter change for him, and crying out from the wilderness of faces, Anaxagoras proclaimed that it was not he who had lost the Athenians, but the Athenians who had lost him. He died in his 74th year, and his epitaph told how he had sought for Truth.

The metaphysics of Anaxagoras indicates that his doctrine was a growth, and that he altered it as fresh conceptions captured his mind. He taught many doctrines that are now admitted truths of psychology. One, for example, that ideas are not copies of things. This is but another way of putting the familiar truth that sensation itself has no likeness to the external cause of sensation. Sound, color, odor, savor, and the sensations of touch, such as hardness and roundness, do not inhere in the external causes of these sensations, but consist only of the molecular rearrangement of ganglionic cells. Thus, if there were no membranum tympani, no auditory nerve, no brain, universal silence would reign. But Anaxagoras knew of neither auditory nerve nor of ganglin cell. He could not demonstrate his doctrine. He taught that Reason ruled the mind, Intelligence the universe.

His physics is more interesting. The elements were three, water, air and fire. The tissues of the body were formed by particles of like kind existing in the food. Bones came from bony particles, flesh from flesh. This theory was applied to inanimate things. The metals were built up by segregation of metallic particles of each kind. And this was equally true of all differentiated objects. There is a vague notion here of chemical combination, but it is only that. He taught that mind was distinct from matter, but held the true doctrine that the difference between living things was only one of degree, not kind. Thus a tree or a flower was only an animal without power of locomotion, but with sensation and desire. Life issued from the mud.

He guessed at geology, and held that the earth had passed through various ages through the action of water and fire. The physical appearance of the earth was changed by the subsidence of certain portions of its surface and the elevation of other portions. The visible hills would be sunk out of sight one day. He taught that there were mountains in the moon. Science has verified all these guesses of Anaxagoras. But his most remarkable doctrine was that of the *mechanical* process of nature. He eliminated fate as folly, and chance because its true nature was not seen. The world, then, was a mere sequence of cause and effect. Indeed, Aristotle describes this now highly scientific theory as being taught by Anaxagoras in these words: "He uses Intelligence as a *Machine* in the formation of the world." Yet Aristotle never did as well, with all his art.

Heraclitus was not undeservedly called "the obscure," as will be seen presently. He was the son of a rich Ephesian, Blyson of name, and for a time wrought in politics. From what is known of his life, it is reasonable to infer that he was either mentally or physically abnormal. He was the Apemantus of Greek philosophy. He did not carry his hatred of men to the pathetically ridiculous extent of Diogenes, but he carried it far enough. With a most brilliant career in the state opening before him, he fled from Ephesus into the mountains and fared on roots. The grace of Apemantus at the banquet describes him:

Immortal gods, I crave no pelf,
I pray for no man but myself.
Grant I may never prove so fond
To trust man on his oath or bond;

Or a harlot for her weeping,
Or a dog that lies a-sleeping,
Or a keeper with my freedom,
Or my friends if I should need 'em.

King Darius sent him an embassy, cordially tendering to the soured ascetic the privileges of the court. Heraclitus replied:

"All men depart from the path of truth and justice. They have no attachment of any kind but avarice; they aspire only to a vain glory, with the obstinacy of folly. For my part, I know not malice. I am the enemy of no one. I despise the vanity of courts and will never set foot on Persian soil. Content with little, I live as I please."

Heraclitus taught that from the senses springs all knowledge. It was only the uncultured who interpreted the senses falsely. Reason without the senses was barren. The source of all things was fire—not flame, but its principle, heat. His ethical teaching was based upon his physics. "All is ordered by reason and intelligence, but all is determined by fate." This is the doctrine of predestination.

Anaxagoras taught that man's immeasurable superiority over all other animals was solely due to the possession of his two hands—and Professor Lester F. Ward, in "Dynamic Sociology," is at some pains in proving the assertion. Heraclitus taught that the sun was one foot in diameter. It is scarcely credible that both men lived in the same age.

Democritus was born in the middle of the Sixth Century, B. C., at Abdera. He was rich, noble, and free to choose his way of life. He chose philosophy. The founder of the great atomic system, a theory that, among all the theories of the Greeks, alone survives to-day, went about his studies in a methodical manner. Taking his share of his father's estate in the form of portable property, such as money, easily disposed of gems, and treasures that could be packed into a small compass, he left home to win by travel all the knowledge he could glean in foreign lands. His early education was supervised by Magians and Chaldeans supplied by Xerxes, whom the father of Democritus regally entertained in his palace in Abdera. It was not unnatural for the student, therefore, to go Eastward, and he visited Persia, India, Ethiopia, and Egypt. On his return to his native place Democritus assumed ineffable superiority over his fellows. He boasted of his travels, and was free in challenging the philosophers with the assertion that he had seen more of the world and knew more of men than any other among them. He at once commanded attention and respect, the more so when he accurately made forecasts of the weather and called attention to some truths, easy enough of comprehension when observed, but seldom enough observed. He might have been great in the state, but politely refused office and continued to philosophize. His less experienced opponents derided him. As, for example, it was said that he had destroyed both of his eyes in order that he might absorb wisdom undisturbed by the transient affairs of life. The bold satire was later recited as fact! He died old and honored.

Democritus was a shrewd thinker and a keen observer. Sensation, he taught, was true and false. True, so far as subjectivity was concerned, false objectively. Nothing exists as pictured by the mind. Outside of the mind there were only atoms and vacuum. From atoms and their aggregates radiated images (force) and these, seized by the mind, constituted sensation. Sensation and thought was one, but there was also Reflection. Reflection made true knowledge, sensation incomplete knowledge. Now this is modern psychology, pure and simple. Impressions ("vivid series") received from external atoms, and their aggregates become (in the "faint series") ideas. Reflection compounds ideas and these combinations, correlated and co-ordinated, make up the structure of the mind—knowledge. The atomic theory of Democritus is substantially the modern theory of chemistry. The metaphysics of Democritus, springing out of this basis—which may be truly described by the word "materialism," leads us into hopeless intricacies. Locke held to the only doctrine of Democritus that is intelligible or valuable. Democritus dismissed God from his universe as being unnecessary.

Of Empedocles and his place in Greek philosophy, no two historians agree. He was born in Sicily and lived in the fifth century B. C. He was rich and a traveler, and he was said to be gifted with a knowledge of magic and the art of prophesy. His philosophy is as little known as his life. He proposed four elements—Earth, Fire, Water and Air. These were wrought upon by Love and Hate. If aught but the most extravagant symbolism can be understood by this, it is hard to see how. In this truth is probably concealed the cause of the Empedoclean controversies.

Before shifting the scene of Greek intellectual development from the provinces of Greece to Athens itself, where now Greek thought is soon to take on its most rapid and interesting movement, one school, famous as any other of the most celebrated schools, demands a brief glance. This is the school of the Sophists. The first avowed Sophist was Protogoras, but the biographies of him and his followers, who shot far ahead of the founder of the school, are insignificant beside their doctrines.

There are many schools of Greek philosophy whose names are household words to-day. The Cynics, the Stoics, the Epicureans, the Peripatetics, are public property—at least nominally. It is true that only the few who have gone in detail into the study of the history of philosophy are familiar with the doctrines they taught. Indeed, usage has changed the value of the words, and by a process, familiar enough to the student of the growth of languages, the modern signification of the names has become quite different from that of the ancient. Such substantial changes in word values are common enough. Cynicism, Stoicism, Epicureanism, these words have their own modern meaning. But *Sophistry* is to-day much what it was in the beginning.

The Sophists were, withal, a sleek and well robed sect. They were what might be called "men of the world," but with a doctrine. They were not the reverse of ascetic, but they lived well. They flatly denied that there was such a thing as "moral responsibility." Right and wrong, as a moral principle, they waved aside. There was no God. The Sophists swept over Greece and were everywhere well received by the party in power, and by those who were successful in commerce and in agriculture. The cities were glad to have them within their walls. They were valued guests, fascinating talkers. They taught a most comforting philosophy to those who were responsive.

Right and wrong, they said, as a principle above the merely physical forces of society, existed only in the imimagination of supersensitive emotionalists. Right was that which the state declared to be right. By the state they meant society, the collectivity of men; wrong was what the state so defined. That which injured most men, or was displeasing to them, was wrong in direct ratio to the importance of the hurt and the number of the men. Right was the reverse. That which received the approbation of the public was right and good; that which was punished with popular reprobation, whether religious, social, or political, was wrong and bad. Morality, therefore was a matter of convention; conscience a matter of education. Therefore, quoth the Sophists, do not trouble your minds about your sins, for if no one but yourself has knowledge of them, you will not be condemned.

The Sophists were fair of speech and had the persuasiveness of honeyed words. They proved their doctrines by calling attention to the fact that a man's conception of right and wrong may be changed by argument. A clever reasoner could thus by force of logic show that right was wrong and vice versa; or, rather, that what appeared to be right could be made to appear to be wrong. They turned the lamp of searching analysis on morality, and when they put morality together again it presented a totally different face. They were honest. They appealed to the reason of their hearers, and left it to the hearers themselves to answer. Was their premise true or false? If true—and they had at least common experience to fall back upon—their conclusion must be sound. There was no God. If there was, who had ever seen Him? There were men, and did not men do and think thus, as they said?

The Sophists suggest the Casuists, and Casuists have been held to be latter-day Sophists, with the addition of a hair-splitting probableism.

Such men and doctrines as these found ready friends among the aristocrats of Athens. They preached a delightfully simple and direct philosophy. Their unaffected, easy manners, the thorough ingenuousness of their method, the somewhat shocking, but not unpleasantly shocking, originality of their tenets and, altogether, the polished and "modern" way they had about them, won them admirers everywhere. Said the Sophists, Lie, if you will, but lie with art. Let oratory bear your deceit skillfully. If you can persuade your opponent that he is in the wrong, although he may be in the right, and that you are in the right, although you may be in the wrong, depend upon it you will gain the applause of the world. This is very like modern diplomacy. And we need not be surprised that such masters of logic were eagerly sought for by the state and entrusted with the most important missions, a fact drawn out by some defenders of the Sophists to show that they were certainly not as wicked as they were said to have been.

But in view of the manners and the morals of Greece at the time of the Sophists, it is no tax on the mind to imagine that these men had all that is academically ascribed to them. They have been denounced (by modern writers of the Nineteenth Century) as vile monsters in human form. They have been charged with wantoness, blasphemy, and atheism. They have been held up as indications of the moral dissolution of Greece, as the pervert signs of the deciduous days of Greek intellectual and moral integrity. Yet Socrates, Plato, Zeno, and Aristotle were yet to come.

In dismissing the Sophists let us say that they were not unduly out of place and that their peculiar doctrines are almost identical with a highly respected modern system which is not now called Sophistry, but rather "the physical basis of ethics."

SOCRATES AND PLATO

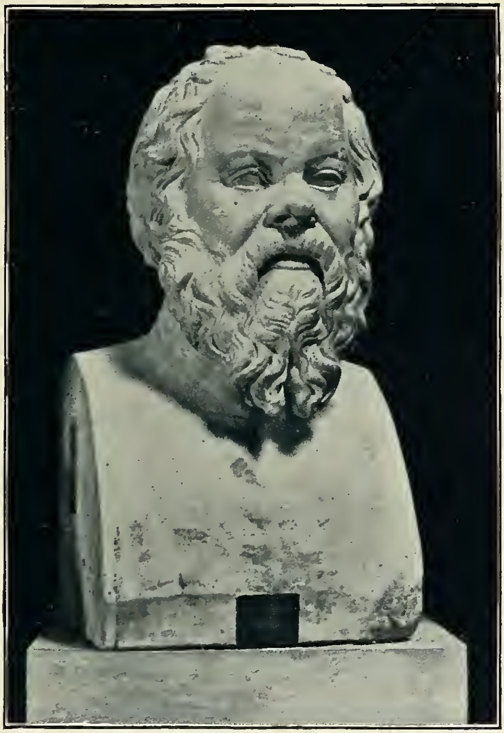
Among all the ancients few have a more distinct or interesting personality than Socrates. Socratic wisdom is a proverb. His name has come down to us as the suggestion of all that is heroic, virtuous, noble. His life and character have been surrounded by a halo that has become brilliant in inverse ratio to the distance that separates his own time from that of his historians. He is portrayed to us as a noble, self-sacrificing, imperturbable moralist. His death is pointed out as the acme of sublime and virtuous resignation. His slightest words are treasured as gems of sapiency; his most commonplace actions detailed over and again with the unctuousness of slavish admiration. It is remarkable that Socrates has not been deified. But if he be not worshiped as a god he is reverenced as sincerely as it is possible for mere man to be.

Fortunately, we have no lack of data concerning the life and the sayings of this most illustrious of Greeks, but a prudent consideration of these will not, it must be confessed, dispose any but those who are more warm than critical to be over-enthusiastic on the subject of Socratic perfection. His biography has been written by Xenophon and by Plato, who quotes Alcibiades. His teachings have been preserved by his two learned biographers, who disagree somewhat as to the master's beliefs. But it is not for his personality that Socrates is remembered. It is for the striking picture his way of life and his character present in contrast to the frame which surrounds it.

Socrates was born in the year 469 B. C. His father was Sophroniscus, his mother Phænarete. The father was a stone-cutter, the mother a midwife. Modern historians, who can find no flaw however small in this paragon of paganism, adhere to the tradition, which came later, that Sophroniscus was a sculptor. As Socrates learned the paternal trade he is likewise said to have been a sculptor, but there is no evidence for the entertainment of this view except the doubtful story of a group of graces executed by his father. The character of Socrates, even when we take it from the deft touches of Xenophon and Plato, is more in keeping with the tradesman who has the gift of speech and a desire for knowledge from which lack of early education debars him, than with the polished, learned artist of the golden age of Pericles.

When Socrates lived the Propylea, the Erectheum, and the Parthenon graced the Acropolis with their noble columns and their superb style. Phidias, whose work has never been approached, had been left by Cimon to Pericles as a heritage of the times. Greek sculpture and Greek poetry were at their best. The finest physical and mental products of Greek æsthetics were about Socrates everywhere. It is hard to believe that the Talker of the Agora and of the public places of Athens was in sympathy with the æstheticism of his time. He was born in the very midst of a civilization of art and letters through which he could not have lived uninfluenced had he been reared in the studios of men like Phidias and his fellows. It has been said that the influence of Socrates remains. It might not be an easy undertaking to verify this assertion.

It is reasonable, then, to take Socrates for what Timon describes him—a stone-cutter. It is probable that he was the mechanical assistant of some eminent sculptor. Phidias, who had complete superintendency of the sculptural, mural and architectural works of the Acropolis, had under him numerous lesser sculptors, and under these



SOCRATES

again were artisans and modelers. The latter can be no more called sculptors than can the "second" of the modern sculptor, who chisels the marble block in the rough.

It is disputed that Socrates was a pupil of Anaxagoras, for he declared that the study of physics was impious. The extravagant eulogies of Socrates that are found in Plato as being a record of the opinions of Alcibiades prove too much. And if any accurate information is to be derived from these records the general conclusion we may draw from them is this, that Socrates adopted the methods of the Sophists, at the same time loudly proclaiming, on all sides and at every opportunity, the splendor of his own virtue and purity while at the same time he took care to point out the wickedness and the foibles of all other men.

There is one thing we may certainly know of this Greek, and that is that, though lustrous as he may have been in all the virtues besides, he was positively lacking in one, and that one modesty. He insisted obtrusively that he himself knew nothing, but he was careful to point out that nobody else among men knew even that much. "They know not," he said, "and know not they know not. I know not and know I know not." His wisdom, however, did not reach the sublime heights of the Saracens who "knew and who knew that they knew." To justify the view that Socrates was a tradesman who aimed at being considered one of the philosophers, attention will be called in another place to his peculiar manner of living and teaching in Athens—a manner of life made possible only by the heterogeneous condition of Greek thought in his time, and the character in general of Greek philosophers.

Socrates was wedded with Xanthippe, who bore him three children. It is possible that this unfortunate woman has been sacrificed to the idolatry that has placed her husband on a pedestal and has bowed before him in blind adoration. It should not be forgotten that Socrates, after all, was only a man, and that he lived in ancient Athens. The debate of the market-place was naturally more attractive to his polemical disposition than was the shop of the artisan or perhaps the aspect of a cheerless home and a complaining spouse. Whatever may have been the private troubles of this celebrated pair, it is certain that Socrates gave over his trade when he had reached middle age and went out into the streets to engage in the unintellectual tourney that was there in daily progress. He boasted of his entire poverty. But it is quite easy to be poor when one prefers discussion to hard labor, and possibly Socrates could not be blamed for his choice. Socrates busied himself with questions of education, yet the thoughtful man will be struck by his neglect of his own children. Still, Xanthippe may have been responsible for that. Then, besides, Socrates had other and more important duties. There were the Sophists going about like ravening wolves with none but Socrates' shrewd tongue and biting wit to discomfit them. There were the pretentious Ionians prating about first causes and none but Socrates to drag them into the light of day and expose their shallowness. There were the licentious, bold, bad boulevardiers who flaunted their vices in the public eye. Who but Socrates was competent to put them to rout?

It is true, of course, that Socrates often suffered rude interruptions from Xanthippe, who would break in upon his discourses with disconcerting demands for money to market with. What cared Socrates for money? Turning to his friends, after the wife left him, he was wont to liken her to a spirited horse. When he could tame Xanthippe, he said, he found other fractious animals easy to his hand. The amiable manner in which he treated his wife has been the cause of much contrasting of the two, to the great credit of the husband. But it is possible that Xanthippe was not entirely to blame. She had to provide the family meals. Even philosophers must eat. And although Xanthippe has come down to us as the prototypic shrew and her husband as the most lovable of men, she should not be too hastily condemned. She is not the only woman whose temper has been incompatible with that of a husband who was fonder of the platform than of the hearthstone.

The children do not seem to have formed a bond of union between the philosopher and his wife. Socrates and Xanthippe made a common mistake. She appears in all particulars as the tradesman's wife. Her family was poor; if it were rich she would not have had to beg her husband for funds to buy food for herself and her children. It is a pity that the Athenian sage was ever married. When he could do so much active work as a philosopher with a millstone like Xanthippe tied about his neck, what might he not have accomplished had he been a free and careless bachelor? We must resist the desire, however tempting, to pass judgment on and fix the blame for the infelicity of the Socratic household. So much has been said upon this theme that it is at best a worn one. The life of Socrates, apart from his too severely criticized mate, is more to the point and more important to the purpose here in hand.

Of the philosopher's personal appearance we have information as detailed and as accurate, possibly, as we have of his habits. He had a low, squat body with a protuberant abdomen, the swayings of which were commonly the subject of ridicule for less rotund and not admiring critics. Supporting this Falstaffian embonpoint were stout, short, muscular legs set firm and solid on the ground by strong, hard feet. He could stand for hours in one spot to waddle away without the least symptom of fatigue.

His face was sensuous, his lips very thick, his eyes large and heavy, standing out beyond the brow with startling effect. His personal appearance, striking and even repulsive, at once assimilated itself with that of a Satyr, the most immodest and disgusting of all the abortions produced by pagan imagination. He was commonly called "Silenus," and the minute anatomization to which he was subjected by Alcibiades leaves a portrait from which a painter could recreate his figure in absolute detail. But Alcibiades was one of the worshipers at the shrine of this satyr and likens him to those statutes of satyrs in the idol shops which, when opened, disclosed within their hideous exterior the figure of a beautiful god.

The combination of this startling figure and face—suggesting, as they must have suggested, shady woods and Priapic orgies—with the lofty protestations of personal pulchritude of soul which Socrates constantly uttered was, to say no more, grotesque. Passers by, attracted by the hideousness of the central figure in any of the Socratic groups that were ever to be seen in the streets of Athens, were at first repulsed by the appearance of the philosopher, but, listening to his speech, interrupted now and again by loud laughter or spontaneous applause whenever he scored some signal refutation of his opponent, the new comer was fain to stay and hear more of the lively and acrobatic debate; or, fixed by the sententious and proverbial style of the Socratic monologue, would linger to learn what such a monstrously ugly man could say to win such close attention.

Socrates had a sharp tongue and a quick wit. This we learn from his easy victories over his opponents who do not seem, by the way, to have been eminent philosophers. The Sophists of his day were light conquests and, although he is credited with having fought them vigorously and on all occasions, there is no doubt whatever that it was from them he learned his dialectics. As has been said before, Socrates was a Sophist, but one who claimed to be good, holy, and virtuous, who believed in right and wrong, or said he did, who sacrificed to the gods and who even requested with his dying breath that a cock be offered for him after he had given up his life.

Attempts that have been made to show that Socrates was a monotheist are made in the face of precise and indubitable evidence to the contrary. Xenophon marvels that the charge of impiety could have stood against him for a single moment. He believed in the current polytheism, sealed his belief by his public practice. Disbelief in the gods, nay, even avowed atheism, was taught in Greece before him by men who did not suffer for their opinions. His contemporaries, the Sophists, as we have seen, even in Athens were not condemned for running counter to the prevalent theology. Socrates was no wiser than the rest of his fellow-citizens in this respect. A man who was so far above and beyond the bodily and intellectual foibles of his kind as he is reputed to have been would never have countenanced by precept and practice the degrading superstitions of the Greeks as we know Socrates to have done. Let us hear Xenophon: "When he sacrificed he feared not his offering would fail of acceptance in that he was poor. But giving according to his ability he did not doubt but, in the sight of the gods, he equaled those men whose gifts and sacrifices overspread the whole altar. For Socrates always reckoned it as a most indubitable truth that the service paid the gods by the pure and pious soul was the most grateful service."

If Socrates were an infidel at heart he concealed that fact admirably, and it is not incredible that Xenophon should wonder that he was condemned for impiety.

Indeed, the rhapsodies into which we find Plato, Alcibiades, and Xenophon constantly lapsing concerning their bewitching Silenus have the appearance at times of admirably constructed satires which even the truly pathetic accounts of the death of the philosopher do not remove.

Socrates, whatever else might have been his real shortcomings, possessed a keen and quick wit and a ready tongue. He said that he sought the truth and, although persistent in his assertions that he alone of men knew all of truth that was known, he ferreted out the philosophers, the poets, the artists, the artisans and the politicians to find out whether or not they were wiser than he. The pretext of this quest is found in Plato's story relating how Socrates once heard that Apollo had pronounced him the wisest of men. The satire here is obtrusively obvious. Socrates, we are told, deeming it impious to question the dictum of so great a god as Apollo, was desirous of verifying the divine utterance by practical tests. He therefore appealed to all those who were considered learned. But after a thorough catechisation of the reported wise ones he comes to the conclusion that all such were far beneath him in knowledge in that they believed themselves wise, but were not. Even skilled tradesmen are condemned because, knowing many things of which the sapient inquirer was ignorant, they conceived that they were informed in lines without their special occupations. Socrates, therefore, sets himself down, or up, as the wisest of all men.

Socrates ambled around the streets of Athens looking for prey to his dialectic skill. His hunting was fruitful. Hearing some teacher expounding his doctrines in physics or metaphysics he would approach and ask questions. Innocently requesting his victim to define this or that term used, he pressed his desire for further definitions and definitions of definitions until his vis-a-vis, becoming tangled in a net of his own weaving, would depart in wrath, leaving the field clear to his leering victor. Then Socrates would proceed to harrangue the crowd, keeping his own virtue full in view—his bodily presence needed no advertisement—and enlarging upon the qualities of virtue, truth, morality, fear of the gods, simplicity of living, serenity of mind, and other generalities without a great degree of applicability. "Define your terms and discussion ceases" is a Socratic *bon mot,* but we have to learn that Socrates ever defined such terms as he himself used. He sought to tear down what was building, but did not concern himself with the basis and structure of all true knowledge.

It was but natural that a man of his physique would make a brave soldier, and such he was. On the field of battle he was lion-hearted; in the camp, in the bivouac and on the march cheery and indefatigable. Plato relates one anecdote of Socratic endurance from which it is hard to eliminate a sub-consciousness of exceeding keen irony. In one of his campaigns Socrates was observed standing wrapped in meditation. He had taken up his position thus in the early morning, and when noon arrived he was still immovable, "arguing within himself." At dusk when some Ionians, having supped, came near the spot to sleep under their blankets, Socrates was still transfixed in meditation. And when the soldiers awoke the next day the philosopher had not yet given up his post; nor did he stir until the sun rose, saluting which god with a prayer, he went on his way.

His scorn of physical suffering was otherwise complete. He walked on the ice with bare feet; did not complain when rations were scarce, but ate liberally when they were plentiful. He did not disdain wine, but was perfect in this respect as he was perfect in all other things; for even though he drank his fellow-officers into a state bordering on the maudlin, he himself was the same cool, clear-brained Socrates of the agora. And this, be it remembered, when in his daily life at home he never or seldom partook of spirituous beverages. Search his biographies as we will we can find no moat in the Socratic eye, no blemish or suggestion of blemish on the Socratic character. Fighting in battle like an Achilles, saving the lives of his friends like a demigod, cool and self-possessed in retreat, refusing the prizes of gallant conduct on the field, and glorious even in defeat, there was never such soldier as Socrates. Thus Plato. However, we have one ancient presentation of Socrates that is customarily passed over in silence or slighted by his admirers. This is the picture drawn of the sage by Aristophanes, the playwright, in his comedy "The Clouds." He is here described as a Sophist and it is plain that the dramatist was not deceived by his apparent enmity to the men from whom he borrowed his dialectics.

The trial, condemnation and death of the philosopher have even been a subject of reprobation to the Greeks. That such a perfect creature could be wantonly murdered by the Athenians has never been understood by those who can see nothing in his character but the good, the beautiful, and the true. As we have seen, the charge of impiety cannot stand. The society that could tolerate the Sophists and listened unmoved to the doctrines of monotheists, magians, and atheists imported from the colonies, would hardly take offense at the free expression of religious thought in Athens. Socrates was considered a source of danger to the youth of the city.

It is no less than absurd to hold that Athenian ire could have been roused against any man who sought to teach Athenian boys the merit of right conduct, of truth telling, of lives wisely and temperately ordered, of devotion to the gods, of justice and of patriotism. Men are not slain for such doctrines as these. Fatuous biographers of Socrates weakly excuse the Greeks by saying that Socrates to them was not what Socrates is to us. And this, while perfectly true, is no commendation for modern thinking. The Greeks, or such of the Greeks as were free and cultured, and these were the rulers, the aristoi, were in no wise inferior to the same class of the men of to-day. They did not have the printing press and the electric telegraph, but in human sympathies and in those refinements of life that distinguish the best society of this age, they were not at all lacking. That they had deep seated and serious objection to a satyr-like old man mingling with their growing boys and teaching them nobody knew what, when he should have been engaged at home or elsewhere with persons of his own age and station, is not to be wondered at. It is doubtful if a Socrates of to-day would be so summarily dealt with as was the Athenian, but it is more than probable that his career would be cut short much earlier now than then.

Socrates said much concerning the education of youth. But it is odd that he found no patron to assist him in entering upon an educational career and in founding a fixed school of his own. His friend Crito, who is said to have taken him out of the workshop, does not seem to have been impressed with the qualifications of his protege as an educator, although he liked his dialectics well enough. The Athenians did not regard Socrates as a fit man to consort with the rising generation. Whether the danger lay in his political or his moral influence on the youth of the city is of no great importance. It is sufficient to know that Athenians were alarmed for their young men and boys. Sequestration from society is the punishment which later peoples have meted out to men of the Socratic stamp. Death was the punishment then.

The short career of Socrates in the Senate was dramatic, as was ever the case with all he did. The senatorial position he held was his only public office. While in that body his opposition and his obstruction made him the principal figure among senators, and these have been expanded, like all his other doings, into marvels of virtue.

The last scene of all has been as minutely described as the other affairs of his life. He was visited while in prison by his friends and, if the Platonic account is to be trusted, these friends and pupils had profited little by the lessons he is said to have taught them.

On the last day of his life he was humanely and considerately treated by the authorities. No man condemned to death in these times is given more freedom or is more kindly served than was Socrates. The Greeks did not hurry the convicted one to death with the wrath of savages. The jail was open to all who cared to visit him or to all whom he cared to see. The executioner who handed him the poisoned cup was respectfully, even tenderly, considerate. The condemned was surrounded by his friends. He spoke to them calmly, but had no fear, while they themselves were weeping like women.

Shortly before the time for the execution of his sentence his wife and sons came to see him. Xanthippe, in spite of all her shrewishness and all his neglect, could not let her husband die without weeping upon his breast. But Socrates was as insensible to her tears as he had been to her scoldings. He requested that she and the sons be sent away. He would at least *die* in peace. His followers, however, he retained, and to them he delivered his final platitudes. He swallowed the poisoned draft, and as he grew cold from his feet upward and the death rigor came upon him, he turned to Crito and requested him to sacrifice a cock to Æsculapium. "We owe a cock to Æsculapius" were his last words.

The biography of Socrates is his philosophy, if he can be said to have had a philosophy. He wrote nothing. He did not offer a rational theory of man or the universe. He was an unconscious methodologist. He despised physics, or pretended to despise it. He held that time devoted to the investigation and observation of natural processes was time wasted. He found no beauty or fascination in the blue sky, the running brook, the noble mountains, the blooming meadows with their varied forms of life and the marvels of their growth and decay. The bees with their honey and their geometry interested him not. It did not occur to the mind of this great man that the infinite spaces all around him contained the matter and the matrix of the All. Whether the earth rested upon the back of a turtle or of an elephant, or whether, perhaps, it circled the sun as one of a family of nobler and more beautiful satellites, was to him a question of the utmost insignificance. The music of the spheres and the rattle of Xanthippe's dishes were all one to him. He said to Phædrus: "I am very anxious to learn, and from fields and trees I can learn nothing."

It is not impossible that Socrates could not comprehend the physics of some of his contemporaries and predecessors. He did not care to speculate about causes. Once when pushed with this point he replied in words weak beyond expression, indicating a desire to elude discussion upon a subject of which he was perhaps in total ignorance: "I have not leisure for these things," he said, "and I will tell you why. I am not yet able to know myself, and it appears to me to be very ridiculous to inquire into that in which I am not concerned."

How one holding such opinions as these can be said to have been the inventor of the Baconian method of induction is inconceivable, and yet such has been the position of not a few who are eminent as commentators and historians. If Socrates left anything that is valuable it is his example in asking questions and insisting on the definition of terms. There he asked for the impossible. Precise as science has been in many respects, it is lacking in this. A writer will hedge his work around with definitions and limitations only to find the structure he has reared fall about his head in ruins when he learns the truth that words are at best inadequate symbols of thought and shade into one another by imperceptible degrees, mocking our efforts to fix their meaning to one clear concept. If the Platonic philosophy, as has been claimed, is the result of the application of the Socratic method that method can not have been in any measure identical with the method of Bacon. Socrates, if anything, was an ethicist, but he was an ethicist with not even as scientific an apology for his doctrines as had his originals and enemies, the Sophists of rich raiment.

Let us pass from Socrates to his pupil; a pupil famous as his master, infinitely better bred and in all ways more deserving the great title of philosopher. Plato's works are read to-day by more men than he could possibly count upon. Those who know him through the many and excellent translations that have been of late years placed upon the book market at cheap prices, or those who, more fortunately, are capable of studying him in his own Greek, are fascinated by his many-sided mind and by his broad culture, not less than by his adeptness as a logician and his high polish of person.

Although known to fame and to history as Plato, his true name was Aristocles. The surname he derived from some physical peculiarity, whether broadness of brow or broadness of shoulders is in dispute (and indifferent). He was a native of Athens and he sprang from one of the most aristocratic families of that city. The descendent of Solon, he might well have ranked with sons of the proudest lineage, and his wealth was commensurate with the high position to which his nobility of birth entitled him.

Plato's early education was a matter of the gravest concern to his natural guardians. He was sent to the gymnasium, where he was trained with the youth of his class in those physical exercises for which the Greeks are as much remembered to-day as for their art, their philosophy and their poetry. Excellent man that he was in many other ways, he excelled also in athletics and won his trials for the public games.

Intellectually, his youth was much the same as that of an earnest, studious, and ambitious collegian of our own times. Blessed with abounding health and that clear mentality that accompanies hard muscles, good digestion, and sound sleep, he was not without the beautiful melancholy of discontent that is ever found in the nature of such youths as become great in their maturity. Boys of this description almost invariably write poetry. Few of them become even mediocre poets in later life; fewer still master poets. Poetry, being the easiest outlet for the forces generated by the fermentation and stir of adolescence, to poetry they turn. And, as a general rule, they are heartily ashamed of their youthfully ambitious productions when they fall heir to the sobriety of ripe manhood.

Of this type was Plato. Before he was twenty he had written some thousands of verses. Of these but a few remain, and they are not greatly to his credit. We need, therefore, have no great regret that he destroyed a few tragedies, a volume or two of lyrics and a generous quantity of epigrammatic verses. He even essayed an epic and this is no occasion for surprise when we learn that he eagerly gave it to the flames when he compared it with the Iliad. But all this is to his great praise. He was proficient in music, too, and in the arts generally. But to the young mind that is about to burst into flower and is stirred by something deeper and profounder than mere art can labor with and satisfy, poetry and music are but poor ministers. This is the beauty of youth; the source and mother of science and philosophy. And Plato felt it all.

Early did this melancholy and enthusiastic young man address himself to the quest for Truth. He is said to have followed after the pattern of the recluse Heraclitus; to have questioned the trees, the rocks, the clouds. Next we find him deep in skepticism, at the age of eighteen or nineteen, the age at which boy philosophers are usually plunged into the endless abysses of Doubt, or at which, nowadays, they become the devotees of a burning Hegelianism or of a "divine" Fichteism. Such was the stage to which the mind of Plato had come when, at twenty, he heard the voice of Socrates for the first time.

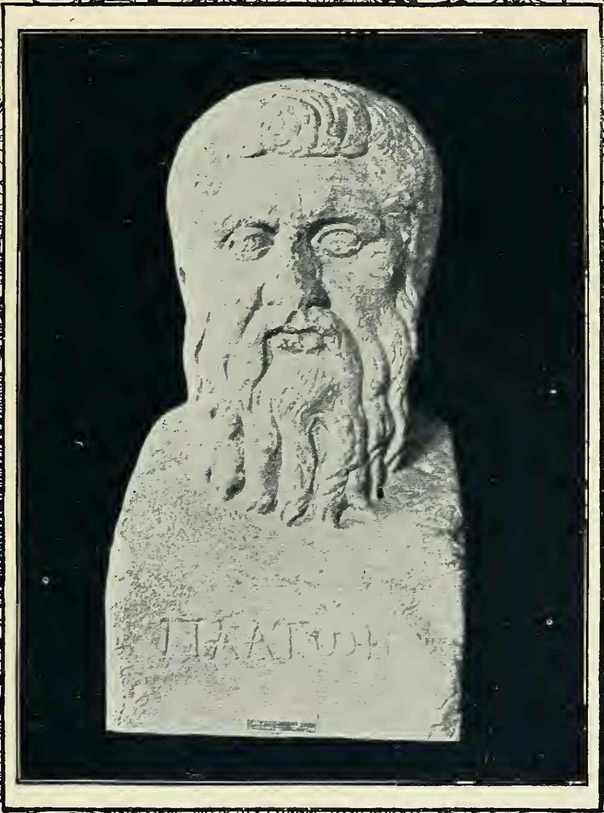
That Plato immediately burned his tragedies after having listened to his first Socratic discourse, is almost a necessary conclusion; that he returned to hear more from the same source is as certain as gravitation. Now, as Socrates spent his entire day, year in and out, talking in the marketplace to all who would stop to hear him, Plato had ample opportunity to attend and learn.

Plato had written poetry. Socrates smashed the poets and their poems with one iron word. Plato had been taught, as was natural for one of his class, the political science of his day. Socrates leveled the politicians with one blow of his unanswerable ridicule. Plato had studied the physics and the cosmology of the colonial masters. Socrates, with his insidious manner, his prodigious mobility of facial accent, and his inevitable and doom-sealing interrogatories, *questioned* the colonial cosmogony and physics out of existence. Plato came again and again. The young mind delights in iconoclasm as the child delights in the destruction of physical devices put together at great expense by his elders. Plato drank in, with impatient thirst, the words that came from the heavy mouth of the Talker. He sought the great man personally. He became his pupil, his friend. There is no doubt that Socrates cultivated this new admirer. It was his way.

Plato followed Socrates for a half score years—until his death. But by that time the bare morality of the master had grown burdensome to him. He found that Socrates, while an excellent iconoclast, was a poor reconstructor. Plato had desired a system, a theory of the universe, an understanding of mind and matter. Socrates told him that in virtue alone was happiness found. But Plato knew otherwise. Being virtuous, he was *not* happy. The deep impression made upon Plato by Socrates was the impression on the plastic, eager mind of raw youth. That he loved the old man intensely there is no doubt. To repay the fancied debt he owed him, Plato imbedded Socrates in the very heart of his own fame. He expounds his system through the mouth of his master. And whenever he comes to a conclusion, that conclusion is spoken, in the Platonic dialogic style, by Socrates.

After the death of Socrates Plato gathered up his effects and went on a lengthy journey from Athens. Socrates, dead, was more famous than ever. Plato, his favorite, most distinguished and wealthiest disciple, was regarded with much curiosity. He might have began teaching at once, but he was in search of knowledge which Socrates, with all his wit, had not been able to teach, and he went abroad. He visited Megara, Cyrene, and Egypt. The influence of the land of colossi and pyramids upon his philosophy is as vigorously controverted as is the question of a similar influence on the system of Pythagoras. Egyptian influence on Greek thought may be exaggerated but there is sufficient reason to believe that Plato brought with him from the Nile theories which could never have arisen from the use of the Socratic Method, as Socrates' insistence on definitions is called. On his return to Athens he was warmly welcomed by all who took an interest in the Athenian movement, which was now rapidly rising to its culmination.

Observe now the difference between pupil and master. Aristocles, the æsthete, the polished, the cultured, the aristocrat, makes no traffic of his lore in the marketplace and highways of the city. He soils not his fine garments by contact with stevedores, apprentices and loungers. He offers no display of his intellectual treasures before the eyes of laughing and empty-headed loons, nor does he argue with politicians, poets, and double-fisted mechanics in order to prove the supremacy of his wisdom above that of all men and the godliness of his character as compared with all other Athenians. Such is not the Platonic way. On the contrary he leaves the city behind, with its blare and its noise and retires to a delicious grove some distance from Athens and takes up his station beneath the shade of grateful trees, with their palmated branches. There he begins to teach and thither flock all of those with whom Plato is pleased to consort. The name of this garden was "Akademia" and Plato's school was called the Academic school, or the Academicians. Thus he gave us the word "academy" with all that it means.



PLATO

Berlin Museum

The Academy was truly a delightful spot. The ideal of a site for a school of philosophy that its name ever conjures, probably has not been exaggerated. Here, in the fresh pure air of the country, in a climate that has inspired the most sweetly rural poetry, in the very heart of classic Greece, Plato founded his school and taught his philosophy. Through the grounds of the Academy wound a musical little stream, fringed with many species of flowers, to which the bees paid daily visit, adding the soft, low music of their wings to the bubble of the brook and to the natural and artificial beauties of the place. Through the green of the shrubbery the sun lit up here and there the white gleaming figure of a god or goddess, and for those whose piety felt the need of religious consolation, there were temples at hand and altars whereat the sacrifice could be offered, and the libation poured.

To this retreat came none but such as had leisure and propensity to devote themselves wholly to philosophy. There were no stragglers, none who stopped out of curiosity to hear what was going forward, and go on their business. If any came from Athens out of the spirit of vulgar inquisitiveness to see the new teacher, they were sorely disappointed. For Plato was no haranguer, no debater no disputatious interrogator. He was severely philosophical, and when he was not presenting some abstract and difficult problem of dialectics and giving his hearers a demonstration, he was expounding his peculiar theory of metempsychosis or he was discussing the nature of mind or the nature of Beauty, Virtue, Truth, or the essentiality of Being. Such discussions are caviar to uncultured minds, and Plato was not interested in these.

While yet in his thirties, Plato had won an eminent success as a philosopher. He was the first Athenian to bring out a system, and the first Greek to systematize his thought. For several years he taught in the Academy. Only three times after his return from Egypt did he go abroad. These visits were made to Sicily and all of them were unfortunate. On his first visit he was arrested and sold into slavery by Dionysius of Syracuse; on his second visit the successor of Dionysius, Dionysius the Second, ordered him out of the realm, and his third visit was without consequence. He returned to his beloved Academy to leave it no more. There he lived and taught until an aged man and left behind him an extensive literature.

Plato is the only Greek philosopher whose influence and whose doctrines are now of living force in the world at large. Those modern amateurs of philosophy who cling to the Aristotelian cult are not Aristotelians. They accept Aristotle with a provision. They are the intellectual heirs of the dead and gone schoolmen of the Middle Ages, and they have not advanced a step from the point at which the scholastics left the field to the new and fearless thinkers who made the divorce between philosophy and theology complete and lasting. But Plato lives to-day in *Platonists* and Platonic societies. Journals have been published with his name in the title line and there are many who adhere firmly to his doctrines and who teach them in their academic purity, though often with a resort to interpretation of cloudy passages which, in all probability, would not have received the master's sanction under the palm trees. Plato has been translated so fully that an acquaintance with the original Greek is no longer necessary to an adequate study of his works. But it must be said that the Platonic cult of to-day nearly resembles the Buddhist cult and partakes almost of the character of a religion. His modern followers are disposed to regard him as an idealist, confusing Plato's theory of ideas with the mystic idealism of the later Kantians and adding to this palpable misconception the Academic doctrines of rebirth and reminiscence.

The philosophy of Plato has been the source of interminable disputation and controversy. Scholars have differed so widely in the interpretation of his doctrines that it is next to the impossible to summarize their opinions. Nor will a careful study of his writings be of greater service than will be a study of his critics and his commentators. Lewes wisely accounts for this variety of thought by the fact that Plato changed his opinion many times and, leaving his works unamended as he did, the student is naturally puzzled by numerous contradictions and inconsistencies. It will not be out of the way, however, to here correct a few popular and gross misconceptions that prevail with concern to some of his teachings.

Nothing is more trying to one who is familiar with Plato's writings than the use of the expression "Platonic Love." Time and again the error in the widespread misuse of these words has been pointed out, but all to no purpose. By Love Plato meant the aspiration of the soul for the divinely beautiful, and such feeling as may exist in the way of an intellectual bond between the philosopher and his pupil may be the manifestation of that wider attraction that draws the immortal soul toward divinity. It is thus he explains the human desire to worship any object or person that is possessed of striking or singular beauty. He calls attention to the truth, as familiar now as it was then, that great beauty stuns the mind at first sight and leaves us with alternate feelings of awe and love. And this is so, because that in the individual person or thing is revealed a glimpse of that perfect beauty which, of beauty, is the only real existence. The common disfigurement of this truly noble conception is at least exasperating. The sexes have nothing to do with Platonic love, and the popular usage of this term is worse than travesty. It is entirely possible for one who is not an idealist and who is not under the influence of mystic habits of thought to misconceive what Fichte has in mind when he writes of the "Divine Idea," but it is not improbable that the German philosopher, though not so clear as Plato, had much the same thought as the Greek. Fichte's Divine Idea, interpreted by Plato's Love becomes clarified and intelligible.

In working out his philosophy Plato used the deductive method only. The Beautiful (το ϰαλον) and The Good (το αγαϑον) have a permanent meaning in our own day and language. But the sense in which Plato used these symbols for his thought is more often lost than otherwise. Plato taught that Virtue, Truth, Beauty, Goodness, exist as entities and are the only real, substantial existences. These existences are the *Ideas* of Plato. We may simplify the Platonic doctrine by stating its antithesis. We say that virtue, beauty, goodness, are attributes of a man or a thing. There can be no virtue except that there is some person or some thing that is virtuous. There can be no beauty without some person or thing in whom or in which the beauty inheres. The general idea of Man could not exist without individual men to whom manhood pertains. With us the totality of men is Man. The abstract idea of Man is arrived at by the cancellation of all individual men. When we speak of Man in general we mean kind only, genus.

Plato reversed this order. Individual men did not exist for him really. Individual virtue, individual beauty, individual goodness was the reflection in particular cases of the general idea. These particularizations were dependent upon the real Beauty which existed of itself as an actual entity. Virtue, goodness, and beauty did not inhere in things virtuous, good or beautiful, but existed apart and unconditioned by them. For us a genus consists of the totality of the particular individuals of the genus. For Plato genera (called Universals) were realities separate from and independent of particular things. Things were copies of ideas. Thus the idea of a house, a table, a garment, was conceived first and afterward the concrete thing produced, merely a copy of that idea. For, argued Plato, had not the idea pre-existed in the artificer the thing could not have been produced. Ideas and things, in this meaning, have been also called noumena and phenomena. Matter takes on the form of ideas, but ideas exist *per se.* Nor would it be strictly accurate to say that things are perfect copies of ideas. They are at best imperfect copies, and that necessarily, for although a landscape painting may be like the landscape itself somewhat, it is not a copy, or facsimile of the reality. These categories, the True, the Beautiful, the Virtuous, and so on, are different faces of the Divine and the Good is the Divine itself.

Poetical as all this may seem, it must not be supposed that Plato's philosophy is poetry. Far from it. The doctrines, of which the barest sketch has been here presented, are the results of the most rigorous processes of logic. Of course we know now that such views are false. Psychology has informed us how the idea of a table is built up; how the ideas of perfectly straight lines, perfect circles, perfect surfaces, and all the ideal instruments with which the geometer and mathematician work, have come about. Psychological analysis has shown us the original synthesis. But in Plato's time little was known of the function of the brain and less of its structure. Science had not yet become the midwife of philosophy and such systems as the Platonic were possible.

If we turn to Plato's conception of physiological processes his ignorance of truth becomes more apparent. His theory of the body was as childish as his theory of the soul, his physiology as crude as his psychology. Ritter presents the Platonic notion of physiological function and structure in the following paragraph, which may be submitted without further comment:

"All in the human body is formed for the sake of Reason, after certain determinate ends. Accordingly, first of all, a seat must be provided for the god-like portion of the soul, the head namely, which is round and similar to the perfect shape of the soul, furnished with the organs of cognition, slightly covered with flesh, which impedes the senses. To the head is given the direction of the whole frame, hence its position at the top, and, since the animal creation possesses all the six irregular motions, and the head ought not to roll upon the ground, the human form is long, with legs for walking and arms for serving the body, and the anterior part is fashioned differently from the posterior. Now, the reason being seated in the head, the spirit or irascible soul has its seat in the breast, under the head that it may be within call and command of Reason, but yet separated from the head by the neck, that it might not mix with it. The concupiscible has likewise its particular seat in the lower part of the trunk, the abdomen, separated by the diaphragm from that of the irascible, since it is destined, being separate from both, to be governed and held in order by the spirit and the reason. For this end God has given it a watch, the liver, which is dense, smooth and shining and containing both bitter and sweet, is fitted to receive and reflect, as a mirror, the images of thought. Whenever the Reason disapproves, it checks inordinate desires by its bitterness, and on the other hand, when it approves, all is soothed into gentle repose by its sweetness. Moreover, in sleep, in sickness or in respiration it becomes prophetic, so that even the vilest portion of the body is, in a certain degree, participant of truth. In other respect the lower portion of the trunk is fashioned with equal adaptation for the ends it has to serve. The spleen is placed on the left side of the liver in order to secrete and carry off the impurities which the diseases of the body might produce and accumulate. The intestines are coiled many times in order that the food may not pass too quickly through the body and so occasion again an immoderate desire for more, for such a constant appetite would render the pursuit of philosophy impossible and make man disobedient to the commands of the divinity within him."

Such is Plato's physiology and his ethics and politics make up a socialism with equality and humanity left out. It is doubtful if aught of real benefit may be gathered from a study of Plato's works beyond that involved in a knowledge of the development of human thought. The interest in him, as in all of the Greek speculators, is historical merely. It is pleasing, if not altogether profitable, for the full grown man to recall the early struggles, joys, and sorrows of his childhood. And as the life of any individual is a recapitulation of the life of the race, it is useful to know what was the intellectual childhood of man. And we may find much of it that is interesting in the philosophy of the Greeks.

THE CYNICS

As the fragments of a clod struck by the foot scatter in various and sometimes in nearly opposite directions, so the schools of philosophy that sprang from the teaching of Socrates diverged widely from one another. Socrates had many pupils, and the seed he sowed did not produce the same species of growth in various soils—a most significant fact. The pupils of Plato were Platonic, the pupils of Aristotle, Aristotelian. But it is hard to find two growths from the same germ so widely variant as the Academician and the Cynic.

Diogenes of Sinope is usually credited with being the original Cynic, but this is chiefly owing to the abundance of anecdotes about his life that have come down to us; perhaps likewise to the fact that Diogenes carried to severer and more extravagant extremes the fashions—one can hardly say philosophy—of his master. The founder of the Cynics was Antisthenes, who was a pupil of Socrates. The Cynics and the Academicans sprang up together and Diogenes, learning from Antisthenes, was contemporary with Plato.

Antisthenes was born in Athens and early in his career distinguished himself in the army, but on his return to Athens was attracted by the Sophists and gave some of his leisure to the study of philosophy. He listened for a long time to Gorgias and then began to teach on his own account. It was not until he was past middle age that he heard Socrates, and that he was fascinated by the ease with which the latter demolished the logic of the schools there is no doubt.

It has been said that Antisthenes did not make good use of the lessons he learned from his master. Plato has been ever held up as a brilliant example of the Socratic influence; but it is less difficult to understand how Cynicism was born of the Socratic teaching than was the involved and pseudo-mystic system of Plato. Socrates expressly deprecated just such philosophy as was taught by Plato. Antisthenes only pushed the Socratic doctrines a step farther. Socrates sought men out to upraid them with their sophistry, ignorance, and vice. Antisthenes hurled himself at their heads. The master affected simplicity of attire and directness of speech; the pupil negligence of attire and brutality of speech. But Socrates was not flattered by the enthusiasm of his pupil or the extremes to which his own example was carried. Even this slavish admirer was not exempt from Socratic ridicule for Socrates once told him that vanity peered through the holes in his coat.

After the death of his master, Antisthenes became an object of curiosity and even awe in Athens. His only garment was a ragged cloak, which he flaunted in the faces of the neatly or richly clothed. He carried a staff and a pouch. Never was a fair word heard to pass his lips. He was not even cleanly. His rough beard, his uncombed hair, and his forbidding appearance, although striking enough, were not to be compared with his bitter taunts to the men he met in his daily walks through the streets of Athens. He despised all those things that are ordinarily valued by civilized men. His fare was simple—even ascetic. He declared that he would rather be a madman than indulge in the gratifications of sense. Antisthenes preached his doctrines in the vicinity of the gymnasium Cynosarges and it was this that gave the name to his school. This derivation is perhaps not so appropriate as that from the Greek equivalent for the word "Dog," a derivation afterward adopted by the school. Antisthenes was an old man when he founded his school, and his temper did not improve with age. He is said to have been deserted even by his pupils, and in this fact he found the supreme vindication of his philosophy. Diogenes, alone, was with him when he died. This latter most illustrious Cynic had not yet Cynicized himself free from all human sympathy. But his association with Antisthenes had not been without its fruit. Diogenes, moved by his master's groans, asked him if he felt the want of a friend.

"Will a friend relieve me of this pain?" snarled Antisthenes.

"This will," replied Diogenes, handing him a dagger.

Antisthenes contemptuously replied: "I wish to be freed from pain, not from life."

The founders of the Cynical school set the Cynical fashion of declaring one's self in epigram. These epigrams were intended to be daggers to the souls of the listeners. A flatterer once told Antisthenes that he was the object of great praise. He replied with a question: "What have I done wrong that I am praised?"

On the death of his master Diogenes straightway set about infusing new life into the cynical philosophy. Born at Sinope, the son of a wealthy man who was convicted of swindling the public, Diogenes as a youth fled to Athens in disgrace. His sudden change from affluence to povetry no doubt determined his future. Wandering about the streets of the capital he heard the buzzing of the philosophers everywhere. Little of what he saw and heard interested him. On all sides he was surrounded with evidences of the ease and wealth that were once his, but his no longer. His family disgraced, his father a forger, himself an outcast, he was in no mood to look upon normal enjoyment and dignified self-respect as worth the cultivation. Perhaps had he not come into contact with Antisthenes he had died unknown. But Antisthenes and his sneers were balm in the wounds of the disgraced and ostracized refugee. An outcast of men he would cast men from him. Poor, he would glory in his poverty. Deprived of luxuries and comforts, he would rail at good taste in dress. Branded with the obloquy of unjust dealing with his fellow men, he would scoff at honesty. Expelled from the banquet table, he would reject all food but crusts.

Diogenes approached Antisthenes and offered himself as a pupil. The old man savagely repulsed him. This was precisely what Diogenes desired. The harshness of the master delighted the would-be pupil. From every fresh repulse Diogenes returned a more persistent petitioner. At last the Cynic raised his staff.

"Strike," exclaimed the applicant, "you will find no bludgeon hard enough to drive me away."

Antisthenes surrendered and Diogenes followed him to the end.

The life of Diogenes is hard to reconcile with manhood. He preached virtue, abstinence, and self-denial; but he did not practice self-denial in any manner to interfere with the gratification of his intolerable pride. On one occasion he encountered Plato, and was rebuked so nobly that had he the dignity of manhood he had profited by the lesson. Plato had invited a number of his most distinguished friends to a symposium. To this gathering the cynic came unasked. Strange contrast his filthy person made with the rich suroundings of the palace. Rudely interrupting the conversation of the superb host and his guests, Diogenes ground the brilliant carpets under his feet, snarling as he did so, "Thus do I trample on the pride of Plato!"

And Plato replied: "With greater pride, Diogenes."

Diogenes did not find many pupils. His was a hard doctrine, a harder life. He had unquestionable courage and no one was safe from his embittered tongue. As he despised all flattery, hated all who bore the form of men, denounced virtue as hypocrisy and decency as mockery, he was difficult of approach. He disdained nutritious food, and, finding the experiment of sustaining his body on raw vegetables, even as the herbivorous animals, a failure, he devoured flesh raw. He stood upon street corners snarling and snapping at citizens who passed him by. He had no fixed place of abode, ate in the streets, or in other public places, and slept under porches or in the open air with no covering save his greasy cloak. He went further. He was not even decent in his actions in the highways of the city, holding that those who showed respect for public opinion in this regard were unnatural. Whatever was natural should be no occasion for shame.

Such a man as Diogenes would not be tolerated to-day, it is almost needless to say. He would be retired as a public nuisance or condemned as a madman. Athenians were easy-going people, who rather relished an oddity like Diogenes. He was held in awe by some for his absolute disregard of personages in power, of kings, and of rich men. His very audacity carried him through. He was taken seriously. Many of the numerous anecdotes told of him would move us to laughter were it not that the depths to which this man permitted himself to sink are matter for sorrow rather than merriment. For example, he once called out: "Approach all men!"

Those within hearing, thinking "the Dog" was about to say something pungent or worth remembering, drew near. They were not disappointed. Diogenes beat them back with his staff.

"I called for *Men,*" he said; "ye are excrements!"

The story of Diogenes and his famous tub is a nursery tale. That he passed much of his time in this traditional resting place there is small doubt. It was not an over-comfortable dwelling, but it served his purpose. It drew the crowd and provided him with an opportunity to curse his fellows. To give him all that is his due, it must be confessed that he was at least consistent. Having punished himself as severely as self-infliction could, he had small care for fate. Therefore we may not be surprised to find him the same imperturable cynic when in his old age he was taken captive by pirates and exposed for sale in the slave market. He was asked what craft he was expert in.

"Governing men; sell me to one who wants a master," he replied. That reply won him his liberty. Overheard by a rich citizen of Corinth, he was purchased and released when master and slave arrived in that city. Diogenes resumed his tub and his cynicism.

It was at Corinth Diogenes met Alexander of Macedon. The general, struck by the strange looking man in the tub, approached.

"I am Alexander the Great," he said.

"I am Diogenes, the Cynic," was the reply.

When the conqueror of the world asked the Cynic what favor he would have, Diogenes replied by requesting Alexander to stand aside from between his tub and the sun. The anecdote would not be complete were Alexander's comment omitted: "Were I not Alexander, I would be Diogenes."

The story of Diogenes peering about the streets of Athens at midday with a lighted lantern, seeking "an honest man," is as threadbare as it is inaccurate. He did not say he sought an "honest" man. He said simply: "I seek a man." Despite his rigor of life, or say rather because of it, the greatest of the Cynics lived to the age of 90, strong and active to the last. He was found dead under a portico, strangled with having attempted to devour a neat's foot raw. As he lived, he died.

Cynicism cannot be called a philosophy. It presents a phase of mind more interesting to the pathologist than to the historian. There is no cynicism to-day. Such states of mind as are designated by that name are charitably referred to an abnormal action of the vital functions. The nearest approach to the philosophy of Diogenes that is found in modern society is found in those individuals who are unfortunately the victims of disordered digestions, or of pathological hepatic conditions. Diogenes was not of that kind. His life in the open air assured him of physical health. The most rational explanation of his extraordinary life is that he was simply playing a part. The situations in which we see him figure are scarcely ever spontaneous. They are almost always prearranged and are all theatrical. Were the character of Diogenes placed upon the stage and these situations literally reproduced, there could be but one result—laughter. We must smile at his reply to Alexander, but Alexander himself was made thoughtful by it, while the king's attendants were awed by the audacity of the philosopher. None the less impressed were certain Eleatic philosophers who were discussing the impossibility of motion in the presence of the Cynic. In the middle of their disputation Diogenes arose and walked away! This was perhaps his most philosophical performance. What is now called cynicism is but a pale reflection of cynicism according to Diogenes. Antisthenes and Diogenes and their school made a great show of virtue and at least pretended to be pure. They denounced all men because, as they held, all men were vicious. The cynicism of to-day sneers not at vice or at hypocrisy, but at virtue itself.

As the Cynics are said to have been the germ of the Stoics, so are the Cyrenaics said to have been the germ of the Epicureans. The founder of the Cyrenaic school was Aristippus, and there are few more picturesque figures among the Greek philosophers. He was a native of Cyrene and it was from the birth-place of its founder the school derived its name. The youth of Aristippus was given up to unbridled pleasure and the wealth of his family gave him every opportunity to indulge himself. The African colony in which he lived was distinguished for its gaiety and love of luxury and the future philosopher was not the most backward in the pursuit of such pleasures and pastimes, as too often touched upon what, called by its right name, was debauchery. Not without the mental culture that every well-bred young Greek was supposed to have, Aristippus delighted in physical accomplishments and was a capital athlete. His hardy constitution and his freedom from the necessity of labor made dissipation for him a not too severely reactive matter.

Even while a gay young man in Lybia he heard of the fame of Socrates and the witchery of his tongue, and he decided that he would visit Athens and judge for himself. A favorable opportunity presenting itself in the journey of a number of wealthy Lybians to Greece to see the Olympian sports, Aristippus joined the company. Such philosophy as he had learned from the teachings of the earlier Greeks melted, as he listened to the logic of the incomparable iconoclast. While admiring to the utmost the fluency and glibness of the Socratic speech, the Cyrenean was in no wise disposed to follow the advice of his new master either in the way of morality or in ordinary self-denial. Why not, urged the gay young libertine, unite the wisdom of the philosopher with the pleasures of the man of the world? Pleasure, no matter of what kind, is, after all, the supreme end of man. He, therefore, who loses no opportunity of extracting the honey from all the flowers of life, is the most wise. Why not use the pleasures of the intellect and the pleasures of sense as buffers, one against the other, lest too much custom dull the edge of either? This was the kernel of the Cyrenaic view of things, and in it we have an explanation of the entire remarkable life of the founder. Hedonism such as this can hardly be accounted a philosophy, especially if we take the happy-go-lucky way of life, practised by Aristippus, as its highest exemplar.

Aristippus was never so happy as when seated at a well and choicely laden table, surrounded by rich and appreciative friends and admirers, and putting the company in a roar with his unapproachable wit and repartee. Modern beaus are all fashioned on the Aristippian model, but Nash and Brummel were never tested as severely as was their prototype. The Lybian was immensely rich when he came to Athens. After hearing Socrates for the first time he offered to pay that master a large sum of money for the privilege of being enrolled as a pupil. "Keep your money," quoth the sage, but he accepted the Lybian. The latter, by the way, would never take a pupil without the payment of a liberal tuition fee.

The superabundant animal spirits of Aristippus were never dashed. He was not only a "philosopher" (in the popular sense of the word), but a philosopher who found something humorous even in his misfortunes. He passed through the sieve of Athenian pleasure, leaving every drachma behind. But he was sunny in poverty.

"Aristippus," said the lofty and temperate Plato to his fellow pupil, "there is not a man alive but yourself who can maintain the same cheerful air in old rags as well as in the richest purple."

His imperturbable good nature under all conditions, together with his quick wit, not less than his really fine education and magnificent polish of manner, completely won over Dionysius, the Tyrant of Syracuse, to whose court Aristippus, Plato, and other Athenian philosophers resorted. His success with kings and rich men generally probably disgusted Diogenes the Cynic. One day Aristippus passed Diogenes while the Cynic was washing his vegetables before devouring them raw. Now, the fastidiousness of the Aristippian palate was well known in Athens.

"Were it possible for you," said Diogenes, "to be content, like me, with simple roots, you would not have to flatter kings for a living."

"And were it possible for you," retorted Aristippus, "to be able to flatter kings, you would not have to be content with roots."

Aristippus was the delight of the Dionysian court and the terror of the ignorant rich men who resorted to it. One day, to try him, the tyrant spat in the philosopher's face. When condoned with the Lybian laughed. "Nonsense," he said, "fishermen to catch a herring will saturate themselves with water, while I am merely sprinkled in catching a whale."

Dionysius, at dinner, ordered Aristippus to take the lowest seat at the table. The philosopher, glancing inquiringly around the board, remarked: "Why is it that you desire to confer so signal an honor on this particular seat?" While the Cyrenaic always asked high prices for his tutelary services, he was an avaricious man by no means. He was once accompanied by his slave, who was carrying a quantity of the master's money, and who complained that the weight of the coin was too heavy for the stride set by the philosopher. "Throw away what you can't carry and carry what you can," was the advice of Aristippus. The man who can treat wealth with such disdain as this cannot be accused of penury. On another occasion a rich but close-fisted patron came to him with his son. "My fee is fifty drachmas," said the master. "Fifty!" exclaimed the father. "I can buy a slave with that." "Go then and buy a slave and you'll have two of them."

His uses of philosophy were somewhat more practical than those urged by Antisthenes, who said he liked philosophy because it enabled a man to keep company with himself. Aristippus, when asked the uses of philosophy, replied: "Strip naked a philosopher and a common man and send them among a strange people." Akin to this anecdote is the other, related by him when he was sailing to Corinth. The ship was overtaken with a violent gale. Aristippus, brave enough when safe on land, quaked with fear as the vessel rolled. One of the passengers remarked: "We common persons are not afraid, but the philosophers are acting like cowards." "More than likely," was the ready retort, "but think of the difference in the souls we have at stake."

It was upon this journey that he was accompanied by the famous courtesan, Lais, with whom he lived for a long time thereafter. When some one reproached him with his want of propriety, Aristippus answered: "True, I possess her, but then, I am not possessed by her. To possess pleasure is one thing; to be its slave is another." On his way to Corinth the ship in which he sailed was wrecked on the Island of Rhodes.

On the sands he observed a geometrical figure. "Peace!" he exclaimed, "I see the footsteps of men," and it was through his splendid oratory that he and his companions found the most hospitable entertainment in the principal city of the Island.

There is scarce an end to the anecdotes that are recorded of Aristippus and as they are jewels of repartee and go far toward an exposition of his views of life, they are worth repeating. He was bold even to the limit of hazard. This is shown in his treatment of Simus, the uncouth but immensely rich treasurer of the Tyrant of Syracuse. Simus invited Aristippus to look over the supberb palace of Dionysius. The philosopher walked through the gorgeous apartments, while Simus was at pains to expatiate upon all the fabulously valuable furnishings and decorations. The treasurer was inordinate in his praise of walls, ceilings, and floors, when in the middle of his talk Aristippus hawked and spat fair into the flatterer's face. Simus grew purple with rage. "A thousand pardons," apologized Aristippus, "but, really, I could see no other place in which I could spit without offense to the King."

Petitioning Dionysius for a favor, he threw himself upon his knees. When the tyrant remonstrated with him for his show of unmanliness, Aristippus replied: "Am I to blame that Dionysius has his ears in his feet?"

Socrates ever eyed his spendthrift and luxurious pupil askance, but there is no record that Socrates at any time came out of a joust with him with the honors. Once, seeing Aristippus exhibit an unusually large sum of money which he had just received from a new pupil, Socrates asked: "Where did you get so much?" "Where you got so little," answered Aristippus. Money, as was natural, was a subject upon which Aristippus often expressed opinions. To have pleasure—at least Aristippian pleasure—one must have money. Jeered at when the royal tyrant sent him a present of coin, while to Plato he sent books, Aristippus said: "What would you have? I need money, Plato needs books." In sore straits, he once begged Dionysius for a sum of lucre. "But," objected the tyrant, "did you not but yesterday tell me that a wise man has no want of money?" "Give," said Aristippus, "and we will settle the question." Dionysius gave. "Now," quoth the philosopher, "I am in no want of money."

Such are the stories told of Aristippus and preserved by Diogenes Laertius. In the Academicians we find one of the fruits of Socratism. In the Cynics we find a second. In Aristippus we find a third. But if Aristippus did naught else he gave the world an Epicurus, and no saner mode of living is to be found anywhere than in Epicureanism. The principal Cyrenaic lived luxuriously when he could, denied himself nothing he could get by his talents, which were really fine, or they failing, by petition, cojalery, or flattery of men who were able to pay for the entertainment he had to offer. The value of a delicacy for his table he gauged by the entire sum in his possession, if that sum covered the price, and to those who charged him with extravagance he retorted by charging them with miserliness. He followed Socrates in thrusting aside all questions of physics and metaphysics, but there his imitation of the Athenian master stopped. His doctrine was easy and his burden light, and he was envied by many who, while admiring his carelessness for the future, had not the courage to stake their all on the gratification of a present pleasure. Horace, who was an admirer of Aristippus and who mentions him as being a model of contentedness, was himself an Aristippian, for he tells his friends to

Love well the hour and let it go;
To-morrow has no more to say
To Yesterday.*

That even Diogenes looked upon Aristippus as a happier man than himself we are justified in thinking from the habit of the Cynic in always referring to the Libyan philosopher as the "Royal Dog." Of the death of the founder of the Cyrenaics there is no record. He was once asked how Socrates died. "As I would die myself," he answered. And in view of his dangerous familiarity with kings, it is not improbable that his death was as violent if not as dramatic as that of his master.

Contemporary with the schools, of which account has just been given, lived Euclid of Megara. He was the founder of the Megaric school and was not identical with the great mathematician of the same name. Like many of the students of the time, he came to Athens to hear words of wisdom from the lips of Socrates. With the latter he is said to have quarreled inasmuch as Socrates, though disputatious enough himself, would not permit his pupils to follow his example. Euclid left Athens and established himself at his old home, where he opened a school in which disputation, but disputation tempered with reason and logic, ruled supreme. He believed that friction between two active minds was more productive of an arrival at certitude than much hard thinking on the part of one. The oucome of the Megaric method of dialectics may be summed up in the Euclidian conclusion that Being was One and immutable, and that the One was the Good.

---

* Thus Swinburne; or, as Horace has it:
——— Carpe diem
Quam minimum credula postero.

This is essentially Platonic, for Plato held that the Deity was the author not of all things but only of Good.

We now come to the greatest of the Greek philosophers —one of the greatest philosophers the evolution of thought has produced. And this will be the apology for devoting to him a rather lengthy biographical sketch; while there is also the further excuse that student though he was, the life of Aristotle, from a purely biographical consideration, is more interesting than that of any of his predecessors or successors in all time, save alone that of the great Englishman who was the first to overthrow the Aristotelian philosophy and supplant it with the method that now prevails. And that Englishman was Francis Bacon.

ARISTOTLE

Aristotle is credited with being almost everything except a god. He was too much a man of science for that. He is said to have been the first to collect a library. He was the first man to make a study of animals and to attempt a classification of living creatures. He was the inventor of the art of logic. He was the originator of "categories." He is said to have received more remuneration for his books than any other writer before or since his time; specifically, a sum that is the equivalent of one million dollars. He was the beginning of physical science. He taught the first approach to a rational theory of the world, or, at least suggested that by observation alone can man learn of his body or of his mind. He was the master of Alexander the Great and from Philip, King of Macedon, he received this letter, which, in view of later events and the glory of his immortal pupil, conveys a compliment from monarch to scholar that is unparalleled in history.

"Philip to Aristotle, wishing health:

"Be informed that I have a son, and that I am thankful to the gods not so much for his birth as that he was born in the same age with you; for if you will undertake the charge of his education I assure myself that he will become worthy of his father, and of the kingdom which he will inherit."

The tender was indeed an inviting one and Aristotle accepted it. He went to Macedon and was quartered in the palace of Philip. At this time the future conqueror of the world had just entered into his fifteenth year. But we will see more of this in another place and soon.

It was in the 99th Olympiad, or about 384 B.C., that Aristotle was born. His native Stagira, or Stagyra, was a city of Macedonia, in the Greek colony of Thrace, sited on the western shore of the Strymonic Gulf. The father of the philosopher was Nicomachus, a physician and a learned man. He claimed lineage from Macaon, who was himself a grandson of Æsculapius, but this descent is fabulous. As a child Aristotle was placed under the tuition of Proxenus, of Atarna, in Mysia. Among his other graces the Stagyrite possessed the rare and beautiful virtue gratitude. He never forgot his friends. When he grew great he erected a monument to the memory of the tutor of his childhood days and adopted the son of Proxenus, Nicanor, as his heir, and instructed him in the liberal sciences.

The precocity of the Aristotelian mind and character is almost incredible. His parents died while he was still a boy, and Aristotle, when he came into his patrimony, turned his attention from his studies to the lavish expenditure of his newly acquired wealth. It is said that he plunged into dissipation and debauchery. Perhaps this was well, for when his estates were all flung to the winds by the excesses he practised, the problem of debit and credit faced him and led him to philosophy. He entered the army a mere boy. But the camp was not suited to the pupil of Proxenus and he soon tired of the alternate business and idleness of the bivouac and the barracks. Giving up arms as a profession, he knew not which way to turn and in this perplexity he consulted the oracle at Delhi. There he was told to go to Athens and study philosophy.

When he entered the famed and brilliant city, Aristotle was only 18 years old. Plato was then teaching his peculiar doctrines from under the delicious shades of the sycamores at the Academy, and to the Academy the youth from Macedonia went. From Laertius we learn that Aristotle was of small stature. His legs were thin, his frame slender, his voice high pitched to the extreme of squeakiness. His eyes were small, but full of passionate wonder and of the light of deep desire for knowledge. Intensely active and restless, he could not contain himself and be still for any length of time at all. He was only at ease when his body was in motion. Afterwards, when he himself became a master, he could not deliver his lectures while standing, but walked up and down, here and there, and so won for himself the title of the *Peripatetic Philosopher,* and his school became known as the Peripatetics.

This deep-reaching young intellect soon saw through the thin philosophy of Plato, which it so readily and thoroughly mastered as to win from the founder of the Academic school unstinted and spontaneous praise. Plato called him "The Mind of the School." And when he was absent from the Academy Plato would say: "Intellect is not here." For twenty years he was a familiar figure in the garden of plane-trees. Meanwhile, he was thinking for himself and working out in his marvelous brain that scheme of things which was to rule the mind of man with despotic and cruel sway for fifteen centuries. There has been no more independent thinker than Aristotle. If Socrates can be called an epoch-maker what shall we call Aristotle? But although Aristotle did not accept the system of Plato with all its unintelligible terminology, he did not found his own school until after the master's death.

He had listened in the Academy. He was grateful for what he had learned, even though to his observing and somewhat common-sense mind, the Platonic system was a mere metaphysic, a logomachy in which one turned round and round in a maze of words to dizziness. The innate delicacy of Aristotle's nature here again manifested itself. How admirable of him to erect a monument to Plato as he had to Proxenus! The epitaph he wrote himself:

> To Plato's sacred name this tomb is reared,
> A name by Aristotle long revered!
> Far hence, ye vulgar herd, nor dare to stain
> With impions praise this ever hollowed fane

He likewise wrote elegaics to the memory of his master and an eulogium on his character. A score of years' association with a man, and that man a teacher, could have but one effect on Aristotle—reverence, if not love. We may therefore discredit the story of Aristoxenus that Plato and his "Intellect" of the Academy quarreled.

But when Speusippus succeeded Plato in the Academy Aristotle was in no mood to linger longer in Athens. He was now nearing the age of 40 and he had long been eminent as an able if not an original philosopher. He was not the man to content himself sitting at the feet of a teacher whom he knew to be inferior to himself. His memory probably reverted to the sunny days of his boyhood, which were spent under the tender care of his old master in Atarna. Hermias, who was now the King of Atarna, had been his friend and his fellow student, and Aristotle decided upon paying him a visit at his capital. Hermias renewed the friendship with every mark of esteem and consideration. With a comfortable lodgement in the palace of the king, Aristotle was enabled to pursue his studies and push those researches which were afterwards to give him the reputation of the greatest of the philosophers. For three years he was the guest of his royal and gracious co-disciple. But ill fortune now put an end to this delightful association. Memnon, the Rhodian, captured Hermias and sent him to the Persian monarch Artaxerxes, who ordered him killed. Again we see the noble character of Aristotle revealed. Hermias destroyed, his personal property was seized and his royal sister left a beggar. The memory of Hermias was preserved by Aristotle, who placed a statue in the temple at Delphos in honor of his dead patron, and made the sister his wife. Soon afterwards the philosopher left Atarna, probably to escape the sad associations of the place, and took up his residence at Mitylene. Meanwhile his fame continued to grow, and he had lived in his new abode but two years when King Philip, hearing of his talent and his great learning, engaged him as tutor for Alexander.

When he repaired to Macedon Aristotle was ripe in years, learning, and experience. One who carefully studies the biographies of both men cannot but be struck with a similarity between many aspects of the characters of Aristotle and Bacon. The versatility and originality of both are proverbial. Both were close observers of nature. Both were rhetoricians of the highest type. Aristotle invented, we may say, the art of rhetoric. Bacon created new words and enriched the English language with numerous forms. One can escape the charge of Baconianism and yet compare the "Promus" with the Aristotelian rhetoric. A study of the former work, now happily written within the reach of the student of English through the indefatigable industry of Mrs. Pott, will more than pay for the time so spent. Bacon found leisure for the consideration of political science as well as philosophy. Aristotle, when he took the young prince in his charge, was familiar with courts and kings and if not a Machiavelli was at least a competent master for a youth who was destined to rule over men.

Philip received the distinguished scholar with a cordiality and deference commensurate with the latter's dignity and learning. The King and the Queen gave him that full confidence that was really necessary to the adequate fulfillment of the important task before him. He was loaded with honor, not of the empty kind that too often, even now, falls to the lot of the man of science after the fashion of the French statesmen who proposed that he would make dukes so common that the title would confer no honor on those who possessed it, while not to be a duke would be a burning shame. On the contrary, he was given substantial emolument and a high place in the councils of the state. Aristotle used his power for the public good, preferring that to private gain. The city of his birth, Stagyra, which had been destroyed, was restored, at his request, by Philip, and the status of its citizens re-established. In grateful remembrance of this deed the people of Stagyra instituted an annual festival in honor of the philosopher.

Of Aristotle's preceptorship of Alexander there are conflicting stories. It is said that the philosopher instructed his princely pupil in politics, ethics, and the philosophy of the time as well as in his own peculiar theories and metaphysics. It is also related that the Prince was taught the beauties of Homer and that Aristotle in this way instilled into the plastic mind of his charge the love of heroic deeds, and that admiration of conquest which were afterwards to give the life of Alexander its bent. When Alexander's education was finished Aristotle left him, but the two corresponded for a long time and until there came the breach between them that was never healed. On bidding good-bye to Alexander Aristotle commended to the Prince Calisthenes, the nephew and the pupil of the master. Calisthenes accompanied Alexander on his famous Asiatic expedition, but unfortunately, presuming upon his standing as a philosopher, he made light of the ruler's dignity and incurred the great displeasure of Alexander. On the pretext that Calisthenes was conspiring against the state Alexander ordered the philosopher put to death. For this he was never forgiven by Aristotle, and Alexander in turn used his power and influence to harrass his old master as much as was possible. It was this resentment that led Alexander to promote the interests of Xenocrates, who became the head of the Academy through the efforts of his royal patron.

When Aristotle returned to Athens, possibly with the intention of himself taking the principalship of the now famous school, he found Xenocrates installed in Plato's place. It was this fact that induced Aristotle to desert the Academy and open a school of his own in the Lyceum. "It will be shameful for me to be silent when Xenocrates speaks," he said.

The capacity of the two men was well gauged by Plato, who said that for Aristotle he needed reins, while for Xenocrates he needed spurs. If Plato gave us the word Academy, Aristotle gave us the word Lyceum. The garden in which Plato taught was named for Academus, the original owner of the ground. The Lyceum was likewise a suburban garden, deriving its name from the fane of Apollo, erected within it to the honor of the god as a slayer of wolves. In the Lyceum Aristotle taught his philosophy to those who came to hear. But he divided the hours of the day between pupils who were capable of understanding his metaphysics and those whose minds were not yet sufficiently advanced for these abstruse studies. This custom gave rise to the belief that Aristotle, like Pythagoras, taught an esoteric and an exoteric doctrine, but this view has not been substantiated.

For twelve years the Stagyerite taught in the Lyceum and made numerous friends, but at the same time he was not free from enmities. So long as

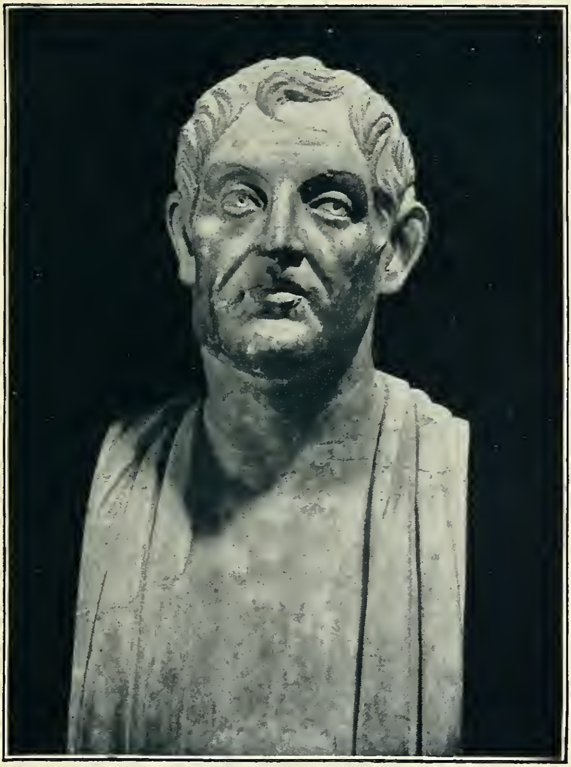
Alexander lived his person was free from injury, and he was not subjected to open insult. Yet the novelty of his doctrine and his strikingly original methods were displeasing to many. When Alexander died his enemies were free to harass him and Aristotle feared the persecution of those who had small respect for learning and who had been embittered by the great distinction he had won as the teacher of the world-renowned Alexander. Eurymedon, a priest, was induced to lodge charges of impiety against the Peripatetic and of these charges Aristotle too well knew he was guilty. He deserted the Lyceum and departed forever from Athens before he could be brought to a trial. Retiring to Chalcis he there remained until his death, spending his last days in teaching the few faithful disciples who followed him thither.

The founder of the Peripatetic school lived to the age of 63, and might have endured to be much older were it not for his peculiar habits of life. It is said that so passionate was his love of study and meditation that he allowed himself little time for his meals and even less for sleep. While in bed he thought. And lest he should waste valuable time in too much slumber he devised a manner of keeping himself awake that was hardly short of the diabolical. At his bedside he placed a vessel of brass. Over this basin he extended one of his hands, in which was clasped a small iron ball. When overcome by somnolescence, the muscles of the hand relaxed, the ball of iron was released, and the sound of its contact with the metal of the basin immediately and thoroughly aroused him. The wisdom of this procedure is questionable, and what the wonderful brain of this man might have done had he allowed it the refreshment of sleep there is no saying.

Great as was the founder of the Aristotelian system, he was not without his foibles and failures. Not naturally attractive of person, he sought to remedy the defect by a scrupulous attention to dress. His hair was always neatly trimmed, his face clean shaven, and his attire rich, even fanciful. He, the philosopher, was not above wearing finger rings and bedecking his body with ornaments and jewels. As was natural with a man of his habits, he suffered from disorders of the nervous system, and was a victim of indigestion, a malady he mitigated with a careful attention to his diet.

According to one account he died at the age of 70, after having taken a dose of aconite and the same historian is authority for the statement that Aristotle was as old as 30 years when he first met Plato. Modern scholars, however, have generally accepted the biographical data first given here, and believe that the earlier account is the true one. After the death of Pythias, his first wife, the sister of his friend Hermias, he wedded Herpyllis, a native of his own city, who bore to him a son, whom he named for the child's grandfather, Nicomachus. To this son he dedicated his work, "Greater Morals." While in friendly relations with Alexander, Aristotle was enabled to make his celebrated biological collection. The King sent expeditions, numbering in all several thousand persons, into many parts of Europe and Asia. The fruits of these expeditions including birds, animals, and fishes of every available species, were expressed to the philosopher at Athens, where Aristotle, after much time spent in the study of the specimens, wrote his celebrated history of creation or animated nature. The work is said to have been expounded into fifty volumes, but of these only a meagre ten now remain.

Of all that Aristotle has left behind there is nothing that brings us into closer touch with his personality than his will. That the reader may have the pleasure of seeing for himself the disposition the great man made of his worldly effects, the will is here transcribed in part: "Many things turn out well; but if anything happens to him, in that case Aristotle has made the following disposition of his affairs: That Antipater shall be the general and universal executor. And until Nicanor marries my daughter, I appoint Aristomedes, Timarchus, Hipparchus, Dioteles, and Theophrastus, if he will consent and accept the charge, to be the guardians of my children and of Herpyllis, and the trustees of all the property I leave behind me; and I desire them, when my daughter is old enough, to give her in marriage to Nicanor; but if anything should happen to the girl, which may God forbid, either before or after she is married, but before she has any children, then I will that Nicanor shall have the absolute disposal of my son, and of all other things, in the full confidence that he will arrange them in a manner worthy of me and of himself. Let him also be the guardian of my daughter and son Nicomachus, to act as he pleases with respect to them, as if he were their father or their brother. But if anything should happen to Nicanor, which may God forbid, either before he receives my daughter in marriage, or after he is married to her, or before he has any children by her, then any arrangements which he may make by will shall stand. But if Theophrastus, in this case, should choose to take my daughter in marriage, then he is to stand exactly in the same position as Nicanor. And if not, then I will that my trustees, consulting with Antipater concerning the boy and the girl, shall arrange everything respecting them as they shall think fit; and that my trustees and Nicanor, remembering both me and Herpyllis, and how well she has behaved to me, shall take care, if she be inclined to take a husband, that one be found for her that shall not be unworthy of us; and shall give her, in addition to all that



ARISTOTLE

Museum Capibolinum, Rome

has been already given her, a talent of silver, and three maid servants, if she please to accept them, and the handmaid whom she has now, and the boy, Pyrrhæus. And if she likes to dwell at Chalcis, she shall have the house which joins the garden; but if she likes to dwell in Stagyra, then she shall have my father's house. And whichever of these houses she elects to take, I will that my executors do furnish it with all necessary furniture, in such manner as shall seem to them and to Herpyllis to be sufficient. And let Nicanor be the guardian of the child Myrmex, so that he shall be conducted to his friends in a manner worthy of us, with all of his property which I received.

"I also will that Aubracis shall have her liberty, and that there shall be given to her when her daughter is married, 500 drachmas, and the handmaid whom she now has, and I will that there be given to Thales, besides the handmaiden whom she now has, who was bought for her, 1,000 drachmas and another handmaid. And to Timon, in addition to the money that has been given to him before for another boy, an additional slave, or a sum of money which shall be equivalent. I also will that Tychon shall have his liberty when his daughter is married, and Philon and Olympius, and his son. Moreover, of those two boys who wait upon me, I will that none shall be sold, but my executors may use them, and when they are grown up, they shall emancipate them if they deserve it.

"I desire, too, that my executors will take under their care the statues which it has been entrusted to Gryllion to make, that when they are made they may be erected in their proper places; and so, too, shall the statues of Nicanor and of Proxenus, which I was intending to give him a commission for, and also that of the mother of Nicanor. I wish them also to erect in its proper place the statue of Arimnestes, which is already made, that it may be a memorial of her, since she has died childless. I wish them also to dedicate a statue of my mother to Ceres at Nemea, or wherever else they think fit. And wherever they bury me, there I desire that they shall also place the bones of Pythias (his first wife), having taken them up from the place where they now lie, as she herself enjoined. And I desire that Nicanor, as he has been preserved, will perform the vow which I made on his behalf, and dedicate some figures of animals in stone (4 cubits high), to Jupiter the Savior, and Minerva the Savior, in Stagyra."

Among other fancies of the great philosopher was one he had for the collection of dishes. It is said that he was accustomed to bathe in warm oil, and to dispose of the oil used in this way by selling it.

Aristotle was not a wit, but many wise sayings are quoted as his. Once when he was asked why he had given alms to a beggar, he replied: "I do not pity the man himself, but his state pains me." Frequently he was wont to say: "Sight receives light from the air surrounding it, and in like manner, The soul receives light from science." When he was requested for the definition of a friend, he replied: "One soul that abides in two bodies." His delicate appreciation of the slightest favor or kindness is exposed in one of his apothegms. Asked what grew old most speedily, he answered, "Gratitude." But he himself was an exception to his own rule. "What is hope?" he was asked. "The dream of a waking man," he replied. Diogenes found no instrument for his cynicisms in the Stagyrite. Once the Cynic offered the Peripatetic a dry fig. Knowing that if he refused the gift "the Dog" had ready his sally, as usual, Aristotle accepted it, thus depriving Diogenes of both his badinage and fig.

When, at another time, Diogenes offered him a similar gift and Aristotle took it and held it up in the manner of a child, saying: "O Great Diogenes," and returned it to the giver.

Of learning he said that its root was bitter but its fruit was sweet. Some men, he said, were as miserly as if they believed they would live forever; others so extravagant as if they expected to die within an hour. When he was asked why it was that beauty of face and figure were the most attractive qualities of men and women, he replied that the question was one for a blind man to ask. Of personal beauty Aristotle is quoted as saying that it was best of all recommendations; Carneades defined it as "a sovereignty that stood in no need of guards"; Theophrastus as "a silent deceit"; Theocritus as "an ivory mischief"; Plato as "the privilege of nature"; Socrates as "a short-lived tyranny."

The educated, said Aristotle, are to the ignorant as the living are to the dead. Philosophy he called a refuge in adversity, an ornament in prosperity. When a man boasted in his presence of being a native of a famous city, he asked the boaster if he was worthy of his home. "Do not wait for those who are behind you," he would say to his pupils, "but rather press upon those who are in advance of you."

To a wag who undertook to ridicule him and asked him if he had not deserved the jeers, Aristotle replied: "I do not know. I have not been listening to you." One of his favorite sayings was: "The man who has *friends* has no *friend*."

Aristotle was too precise a thinker to adopt the method of the *Ideal* philosophy. He admitted that ideas existed, but held that they existed only in the mind. He scouted the notion that they had independent being of their own. He held that Ideas are the production of Reason, and if he did not arrive at the true nature and origin of ideas—this was left for modern psychology to discover—he at least achieved a great advance by distinctly pointing out the radical error into which his master had fallen. He likened Plato to those who, desiring to find out the exact number of a quantity of things, began by adding to the number they had already to enumerate. Men believed that things were red or black, and heavy. Plato complicated the problem by separating these qualities from the things themselves and establishing the general, independent existences of color and weight. Ideas, then, being merely the mental reflex of the relations between Things, Aristotle concluded that it was Things alone that had existence. And things were known only as they affected the senses. Aristotle's philosophy was really an inductive philosophy. Plato postulated general existences—Ideas, General Terms—and these existences were taken on faith. From these he came down to particulars. Aristotle reversed this method. He arrived at generals through the consideration of particulars.

Plato's celebrated doctrine of Reminiscence was this: He accounted for the fact that at times the mind seems to recall certain experiences as having been known before, sometime and some place in the past, by his theory of reincarnation. We see a landscape, a face, a painting; or we hear a sentence or read one, and feel certain that this is not our first acquaintance with the sensation. It seems as if we have beheld the very scene, read or heard the very words, before. They come to us like the memory of a forgotten dream. From this Plato argued that the soul preexisted in another body—an impossible explanation, as a little thought will make obvious. Aristotle taught that such reminiscences were due to the experiences in the present life. Plato leaped blindly at his premises and drew his conclusions at his leisure; Aristotle built up his premises with infinite care and arrived at general conclusions tardily. Plato's philosophy was brilliant and inviting. Its terms were beautiful, and easily repeated, even if one did not know precisely what they meant, and there are many modern imitators of the Academicians in this respect; persons who use words and phrases such as "transcendental," "idealism," "the occult," "eternal principles," "the underlying Cause of all things," "the destiny of the Human Race," implying that they have a perfectly clear conception of these logomachies.

Aristotle, at first, had small use for these indefinite terms. His process was slow and toilsome. "*Art* commences," he says, "when from a great number of experiences one general conception is formed which will embrace all similar experiences." And again, "If we properly observe celestial phenomena we may demonstrate the laws by which they are regulated." Aristotle proposed a scheme of philosophy very well in its way, but utterly impossible in his time. His results, in so far as physical science is concerned, are scarcely worthy of consideration. His speculations are childish; if not as childish as were similar speculations of Plato, at least pitiably so.

Professor Draper ("Intellectual Development of Europe") thus summarizes the conclusions of Aristotle, physical and metaphysical, leaving out the details of his method: "He asserts that matter contains a triple form —simple substance, higher substance, which is eternal, and absolute substance, or God himself; that the universe is immutable and eternal, and, though in relation with the vicissitudes of the world, it is unaffected thereby; that the primitive force which gives rise to all the motions and changes we see is Nature; it also gives rise to Rest; that the world is a living being, having a soul; that since everything is for some particular thing, the soul of man is the extend the sphere of its existence and indicate to it what is at a distance; that place of reception of the various sensations is the soul, from which issue forth the emotions; that the blood, as the general element of nutrition, is essential to the support of the body, though insensible in itself; it is also essential to an activity of the soul; that the brain is not the recipient of sensations—that function belongs to the heart; all the animal activities are united in the last; it contains the principle of life, being the principal of motion; it is the first part to be formed and the last to die; that the brain is a mere appendix to the heart, since it is formed after the heart, is the coldest of the organs, and is devoid of blood; that the soul is the reunion of all the functions of the body; it is an energy or active essence; being neither body nor magnitude, it cannot have extension, for thought has no parts, nor can it be said to move in space; it is as a sailor, who is motionless in a ship which is moving; that, in the origin of the organism, the male furnishes the soul and the female the body; that the body being liable to decay and of a transitory nature, it is necessary for its well being that its disintegration and nutrition should balance one another; that sensation may be compared to the impression of a seal on wax, the wax receiving form only, but no substance or matter; that imagination arises from impressions thus made which endure for a length of time, and that this is the origin of the memory; that man alone possesses recollection, but animals share with him memory—memory being unintentional or spontaneous, but recollection implying voluntary exertion or search; that recollection is necessary for acting with design."

There may be those who will say that Aristotle had many true conceptions of things, but it must be remembered that these were like those of the Greeks who preceded him—mere guesswork. It was on Memory and its function that he built up his method. Memory retains and revives impressions. Likenesses and differences are qualitatively and quantitatively weighed and measured thus, and so we arrive at truth. This process Aristotle calls *Art*. *Art* is possible only to man. His exemplification of *Art* is as follows: "If you know that a certain remedy has cured Callias of a certain disease and the same remedy has produced the same effect on Socrates, and on several other persons, that is Experience; but to know that a certain remedy will cure all persons attacked with that disease is Art. For Experience is a knowledge of individual things and Art is that of Universals." This is the method of modern science. When he says (in doubt as to a conclusion): "We must wait for further phenomena, since phenomena are more to be trusted than the conclusions of reason," he utters the universal dictum of Science. But when Aristotle attempted to apply his method he signally failed, and this failure induced him to abandon the rigorous rule he had set down for philosophy and to plunge blindly into speculation that ended nowhere. With Aristotle Induction led to an arid metaphysic; with Bacon it led to the highest generalizations of experience that are now described by the term *natural laws*.

In his logic Aristotle introduced the syllogism, the principal use of which has been to furnish mental gymnastic exercise for sophomoric collegians in schools where metaphysics has been taught instead of science. Aristotle cut his own fingers deeply with this double-edged instrument of reason. A syllogism consists of a "major premise," a "minor premise," and a "conclusion." For a true conclusion the major premise must be true and must include the minor premise. For examples let us say:

(1.) All men are animals;

(2.) Barabbas is a man: Therefore,
(3.) Barabbas is an animal.

This is a good syllogism. The major premise (1) is true; the minor premise (2) is included, hence the conclusion is true. But if we say:

(1.) All dogs are animals;
(2.) Barabbas is an animal: Ergo,
(3.) Barabbas is a dog,

the syllogism is false, because the major premise does not include the minor, or, in other words, all animals are not dogs. But if we go a little farther we will see that this form of logic will lead to some rather odd conclusions, as for instance:

All that is true is beautiful;
It is true that men steal: Ergo,
Theft is beautiful.

With nonsense such as this have metaphysicians harried the minds of students for centuries. The great major premise has been made to cover innumerable errors, and deductions drawn from the assumed, and false, datum in the first proposition have been held up as demonstrated truths. Thus we may prove that white is black, and that odd is even if only the truth of the major premise be granted. The most sublime absurdities have been held up for ages as absolute truth, because men have *granted* the major premise. But granting and demonstrating are not precisely the same thing, and that is why the whole scheme of the metaphysics of all the schools is a crumbling and abandoned ruin to-day. Science is not argumentative. It is self-constructive and what it surely builds surely stands.

Aristotle's "Categories" are ten in number: Substance, quantity, quality, relation, action, passion, the where, the when, position in space, possession. A category is a *summum genus,* and it was Aristotle's delusion that his categories formed a classification to which all things could be referred; that in some one of them any object or any state of mind could be placed. These categories were later called Predicables, but the change of nomenclature did not alter their essential inadequacy. They are totally useless as instruments of investigation. They are not highest genera, and they are redundant when they are not incomplete. Aristotle's syllogism is as useless as his categories. The truth of the conclusion and of the minor premise is demonstrated with the demonstration of the major premise. When we know, for example, that all bodies attract one another with a force that varies in direct ratio to the mass and in inverse ratio to the square of the distance, we have no need of a syllogism to prove that the moon, being a body, so attracts and is so attracted. Both minor premise and conclusion are stated in the formula in which *the law of gravitation* is laid down.

Were it not that Aristotle's philosophy is upheld to-day by no inconsiderable body of men, much space need not be given it here. He is interesting to us in a measure almost as great as is Gautama, for his philosophy is taught in hundreds of colleges and universities to men who go out into the world with no clearer conception of the Baconian Method and its application to scientific investigation than is derived from the jugglery of the majors and minors of the Aristotelian syllogism. If such schools do not call their philosophy by its honest Greek name it is none the less true that Aristotle and his categories and predicables are the root of it. Floating high up in the dim mists of metaphysical misconception, that philosophy is blind to the running river of progress that flows forward past it on the earth below.

EPICURUS, ZENO, PYRRHO

With Aristotle Greek philosophy reached its culmination. The men who came after him created no system and did nothing to develop his doctrines. Attention has been already called to the lasting influence of Aristotelian thought. When the time came for Christian theologians to enter the arena of dialectics and to establish a philosophy, they took what they found prepared for them by the celebrated Stagyrite and built up around it a theologico-philosophical system that is maintained to-day by the learned men who still cling to metaphysics. Christian philosophy was the application of the Aristotelian method to the vindication of dogma.

But the Greeks who were contemporary with Aristotle, and some who followed, set up new doctrines and founded schools of their own. Some of these retain keen interest for us to-day, if for no other reason than that their thoughts live with us, their names are synoymous with types of men, and their philosophies, too often misunderstood, abide with us in imperishable fame.

Epicure, Stoic, Sceptic? Who does not make use of these words almost daily? And it is by no means an exaggeration of the truth to say that these three words have all but lost their original significance, and that not one in a thousand who is glib enough in that use ever thinks of its source or doubts that the commonplace is the classic meaning that attaches to the words themselves. Yet we shall presently see how far usage has varied the ideas that were in the minds of the men who gave these words to civilization.

No doubt it will surprise all those who are not well informed in ancient Greek philosophy to hear that Epicurus, the founder of Epicureanism, lived upon bread and water and upon the simple fruits and vegetables that grew in his own garden. Water-cress, a radish, a fig, made a substanital meal for the greatest of all the epicures, Epicurus himself. Now and then the philosopher called for a portion of milk or for a little cheese, saying at the same time, "I must occasionally make merry!" Diogenes Lærtius, that mine of philosophical anecdote, writing of this, is moved to say: "Behold the manner of his living, he who has been misrepresented as the greatest voluptuary." And Cicero says: "Ah! With how little was Epicurus contented." All of the Epicureans in that day, in the day of Epicurus, fared as did their master. They ate pulse, drank milk, and smiled at the folly of men whose palates were placed above their reason.

How comes it then (and the question thrusts itself upon us) that Epicurus has been so outrageously maligned? The answer is conveyed in the orthography of the modern word: for an *epicure* is one kind of a man, and an Epicurean is another, and both exist to-day. When we come to the doctrines of Epicurus we will inquire into this distinction more fully. Here it will not be amiss to say who and what was Epicurus, and how he was regarded among the people of his own day.

If Socrates is fortunate in his biographers, Epicurus is no less the reverse. Almost everything that was to his derogation was said of him. Most of these slanders—if indeed not all—are to be traced to Diotimus, a follower of Zeno, and a Stoic. Diotimus manifestly hated Epicurus for what the Stoic probably considered the affectation of simplicity on the part of the founder of Epicureanism. It is said that Diotimus published fifty letters of the most obscene character and attributed all of them to Epicurus. Diotimus had a number of imitators among the members of his own school, and the most outrageous sentiments were attributed by these to the hated one.

Posidonius, Nicolaus, and Sotion have abused him roundly. It was said that the mother of Epicurus was a scrub-woman, and that the son assisted her in her work. It was charged that he was a most immoral man and a profligate; that he lived with a notorious Athenian courtesan; that he claimed to be the originator of the atomic theory of Democritus; that he had no right to Athenian citizenship; that he was a base flatterer of tyrants and of the minions of tyrants; that he crawled before men of wealth and literary reputation; that he was a betrayer of friendships and dishonorable to the wives of his benefactors; that he advised his young admirers to eschew education of all kinds, and that he was in correspondence with three or four of the most flagrant women in Greece.

Epictetus accuses him of being a base debauchee, and Timocrates charges him with excesses of all kinds, presenting Epicurus as a habitual drunkard and ignorant pretender. The latter biographer likewise says that Epicurus had so debauched himself that for years he was unable to rise from his couch, in which he had served him daily the most sumptuous banquets. These men denounce him as a slave, as a slanderer, as a ribald who spat upon Plato's followers. They say he called Aristotle a glutton (!) and an apothecary, Protagoras a valet, Heraclitus a disturber of the peace, Democritus a silly fellow, the Cynics enemies of Greece, and Pyrrho an ignoramus. So much for the slanderers of the good and great man.

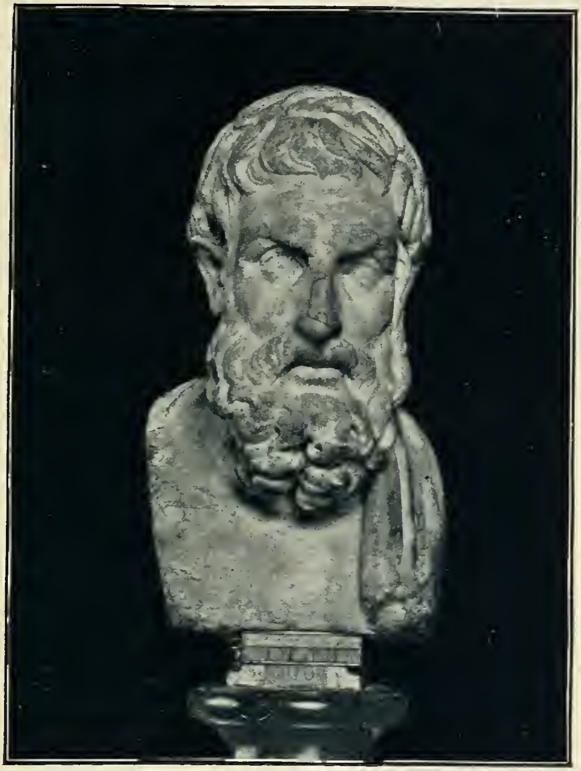
To all this may be opposed one sentence from Fenelon, the celebrated French poet, and an incomparable scholar. In his superb little work, "Lives of Ancient Philosophers," the author of "Telemachus" says: "Epicurus taught that virtue is the most efficient means of making life happy in so far as there can be nothing more satisfactory than to abide by the rules of wisdom and righteousness; to have no occasion for self-reprobation; to be stained with no crime; to injure no one; to do all the good that is within us; in short, to fail in none of the duties of life, and from this he infers that it is only the good can be happy and that without virtue there can be no pleasure." The judgment of Fenelon is the judgment of all who have carefully weighed the evidence for and against the noble Greek philosopher.

Such vile slanders as have been heaped upon Epicurus bear their own condemnation. Had he lived as men say he lived, did what they say he did, taught as they say he taught, would Athens have reared statues of bronze to his memory, his pupils have clung to him as we know they clung to him, and his simple and sweet philosophy have survived to see contemporaneously sprung schools die and be forgot by men?

So numerous were the friends of Epicurus that it was said that whole cities would not contain them. His supreme tranquillity of mind, the Arcadian repose and sweet temper of his philosophy, his public example, his unostentatious probity and piety, the spotlessness of his private character, and the winning sunshine of his presence—all these give the lie to the malicious libels of his enemies. He was grateful to his parents, kind to his pupils, liberal with his relations, considerate to his servants (who were his slaves and whom he emancipated in his will), and benevolent to all men. He did not desert Greece in her most difficult time, and to his other virtues we may add that of true patriotism. It is men such as this to whom nations raise monuments. Epicurus might have been prominent in affairs of state, but his innate modesty forbade.

As against the obscene letters reputed to him we may consider the epistle he indited just before his death to Idomeneus: "We have written this letter to you on a happy day to us, which is also the last day of our life. For strangury has attacked me, and also a dysentery, so severe that nothing can be added to the agony of my sufferings. But the cheerfulnes of my mind, which arises from the recollection of all my philosophical contemplations, counterbalances all these afflictions. I beg of you to take care of the children of Metrodorus in a manner worthy of the devotion shown by the youth to me and to philosophy."

Epicurus was born about 341 B.C. and died about 272. He was drawn into philosophy naturally, for philosophy was then the fashion in Athens. His first attempt at founding a school was a failure, why, is not known. Perhaps he changed his mind and his doctrines when he saw in the highly colored and passionate brilliance of Aristippus the germ of a noble and temperate way of life. The hedonism of Epicurus is not the hedonism of Aristippus. Pleasure with Aristippus meant everything from the sensualism of the eye to the sensualism of the appetites. With Epicurus it meant the mental repose and quietude that come with the more deeply-seated satisfactions of the intellect. Epicurus took the kernel of the Aristippian philosophy and cast away the burr. The ideal of the civilized man is found in the teachings of Epicurus. His philosophy is open to all. It asks no subscription to creed or cosmogony. Pagan, Jew, Mohammedan, Buddhist, or Christian can find therein a safe harbor. His entire philosophy can be summed up in the apothegm, "Be virtuous and you will be happy." It is to this insistence on happi-



EPICURUS

ness, or pleasure, that the distorted image we have of Epicurus is due. The real "epicure" of the Greeks was Aristippus—Aristippus, who could pay out of hand fifty drachmas for a partridge because his palate demanded the outlay.

But the *pleasure* of Epicurus was not to be purchased with coin. "It is impossible," he says, "too carefully to avoid those indulgences which destroy the health of the body and debase the soul. And though pleasure in itself be desirable, we should resolutely stand aloof when the pains which flow from it surpass the enjoyment it yields; and for the same reason that it is eligible to suffer an evil which we are sure will produce a greater good." "The body feels present pain only; but the mind feels also the past and the future."

Among the maxims of Epicurus the following may be quoted as typical:

Pleasure is never bad *per se,* intrinsically. But the causes of some pleasures involve reactions that are by no means pleasurable.

Power and wealth may give us security and peace so far as men are concerned; but the security of men generally depends upon the tranquility of their minds and their freedom from ambition.

It is impossible to live pleasantly without living prudently, honorably and justly; nor to live prudently, honorably and justly without living pleasantly.

The unparalleled success of Epicurus may be attributed to the contrast his teachings presented to the mystic metaphysics of Plato on the one hand, and to the dry logic of Aristotle on the other. He did not tear men's theories to shreds, as did Socrates; flay them with his cynicisms, as did Diogenes; or make use of men's vanities as a vehicle for his selfish enjoyments and indulgences, as did Aristippus. Young men were drawn to him by his magnetic personality and the extreme respect and consideration he showed for youth; older men by his serenity and complacence. He did not pose in an Academy or a Lyceum as the grand magister. He talked in his own garden to his friends, and his friends were all those, young, middle-aged, or old, who entered. Wealth or place had little influence upon his judgments, and the poor youth, after speaking with Epicurus, felt that he could be an Epicurus himself. Epicureanism was the democracy of philosophy. Its psychology and its metaphysics were simple. It did not shatter the gates of religion, nor did it hamper philosophy with a high-sounding theology. It taught that virtue was its own reward, and that the balance-sheet of a man's merits and demerits was struck in this world and the account settled here and now.

It is not to be wondered at that the fame of this novel and remarkable philosophy and its teacher spread beyond the confines of Athens, of Greece. From all parts of the country came disciples. A most heterogeneous assembly must have been that which gathered in the garden of the master. Here were all the dialects of the archipelago; brown-skinned scholars from Egypt, turbaned pundits from India, strange faces from far Asiatic countries, fire-worshiping philosophers from Persia, Jews from Syria, and others from various climes and cities who came to listen to the wise words that issued from the mouth of the celebrated hedonist. Let us hear Seneca (who was a Stoic): "I the more freely quote the excellent maxims of Epicurus in order to convince those who become his followers from the hope of screening their vices, that to whatever sect they attach themselves, they must live virtuously. Even at the entrance of the garden they will find this inscription, 'The hospitable keeper of this mansion, where you will find pleasure the highest, will present you liberally with barley cakes and water from the spring. These gardens will not provoke your appetite by artificial dainties, but satisfy it with natural supplies. Will you not then be well entertained?' "

The following of Epicurus differed from that of most of the other Greeks, with the exception, perhaps, of Pythagoras, in that his pupils were united in a fraternal body but in nowise a secret society. Communism was not practiced among them, systematically at least. Epicurus would not permit a common fund, saying that such a custom reflected upon the integrity and generosity of the individual rather than distinguished the school for its liberality in worldly affairs. A common purse smacked of mutual distrust rather than of the reverse. Each member of the fraternity was thrown upon his own instincts of kindness and helpfulness, and the result is said to have been most exemplary. Those who had plenty readily and eagerly supplied the wants of a less fortunate brother, while the needy ones were relieved of all embarrassments by the spontaneity with which those who had to give gave. Their needs were slight and easily satisfied and contentment reigned supreme. According to Cicero, the Epicurean community—a community based on individual manhood—was unapproached by aught of its kind.

As Epicurus was guiltless of the disgusting intemperance of which he was accused by his libelers, so was he innocent of their charges of incontinence. In order that he might pursue his philosophical studies more pertinently he lived the life of a celibate. He taught his pupils that subjection of all the passions promoted clarity of thought and made easy the way to that serenity of soul most to be desired by the wise ones.

Owing to the violently contradictory accounts of his character that have come down through the centuries, scholars have been at great pains to establish the veracity of his eulogists and of his detractors. The result has been all that one who admires probity and purity can desire. There is internal evidence in the charges against him of their slanderous nature. In all of them there is manifest animus. As the Stoics were his principal enemies it may be that their attacks were prompted by jealousy of the garden philosopher's great and abiding success. But even Zeno praised the personal character of Epicurus if he did not agree with Epicurean doctrine; and when Plutarch, Cicero, Valerius Maximus, Galen and numerous clear-sighted and exacting fathers of the Christian Church, men who were conspicuous for their virtues and their wisdom, find reason for thrusting aside his accusers as base maligners, there is no good reason for believing that Epicurus was not what his philosophy makes him out to have been. Indeed, his derogators overreached themselves in their animosity and hate; they overshot the mark, and their shafts fell spent on the ground. These slanderers were as much inconsistent as were certain Europeans who taught the people that Napoleon was a hideous monster whose Gorgon aspect was calculated to frighten the beholder into spasms. Such calumnies are common enough even in these times, but those who credit them are indeed the ignorant.

No other Greek philosopher was so highly honored after death as was Epicurus. His birth anniversary was celebrated as a festival. His followers committed his maxims to memory, and many memorized even great sections of his writings in order that no corruption of his teachings might be possible. His philosophy was preserved pure longer than that of any of his predecessors or successors. But slanders live and outface truth, and if the name of Epicurus carries its own condemnation nowadays that condemnation is none the less unjust.

Apart from his doctrine of Pleasure Epicurus taught little that was original. He followed Democritus in the latter's physics and his theory of sensation was cloudy and incomplete.

As Epicureanism was the refinement of Aristippianism, so was Stoicism the refinement of Cynicism. Zeno, the founder of the Stoic school, was for long a pupil of a Cynic master. He was born at Citium, in Cyprus, about 340 B. C., and died about 265. The school derived its name from the Porch (στοδ) in which Zeno taught—a place that had been frequented by the poets. The modern conception of the heart of the Stoic philosophy is not far wrong, but Zeno built up about it an elaborate scheme of theology, psychology, and physics. If one were called upon to describe Stoicism in three words he could well say, "Indifference to pain."

Zeno, as his after-life amply proves, was most serious in his youth and possessed of a gravity that was certain to make his influence felt when he matured. This is evinced by his anxiety as a youth to learn and realize his proper sphere in life. To this end he consulted the Delphian Oracle and was enjoined to make himself one color with the dead. Taking the oracular advice literally he undertook the study of the writings of the ancients. How far he might have succeeded in this somewhat problematical quest will never be known, for he was soon to be diverted into other channels of thought that were to lead him to Stoicism and a state of mind much in accord with the oracle's counsel if we accept the definition of Stoicism already given. It should be stated, however, that Zeno had asked the oracle what he must do *to be happy* and we are justified in doubting whether, after all

And Crates was persuaded. Zeno spent another ten years under Stilpo, Xenocrates, and Polemo, but these teachers satisfied him even less than did the Cynics. He decided that he would establish a sect of his own, and so we have the Stoics.

The portico or colonade in which Zeno taught men was called the Prisanactium. It was beautifully decorated with the superb paintings of Polygnotus, and was an ideal city site for a school. The poets, as we have seen already, had been frequenters of this portico and they, too, were called Stoics for the same reason. This was, perhaps, the occasion of Zeno's school being at first called the Zenonians, but the name of Stoics triumphed and soon the Zenonians overshadowed the poets and Stoicism because synonymous with Zenoism. The new doctrines and the new master achieved a world-wide reputation and men came from all parts of Greece to hear the lectures in the Stoa.

Possibly from the extreme severity of his philosophy the life of the Stoic is lacking in many of those theatrical situations that are so common in the lives of most of the Greek philosophers. Of Zeno numerous anecdotes are told, but most of them lack the pungency of those related of Diogenes, Socrates, and Aristippus. An interesting episode of his career was his contact with King Antigonus and the clever manner in which he escaped the hazardous life of the court. Antigonus was deeply inpressed with Zeno's wisdom and fortitude and enrolled himself among the Stoic's pupils. But although urgently pressed to go to the court, Zeno courteously declined. After pleading the larger uses of his site in Athens, he concludes his compliments to the King by calling attention to the impairments of age and the great risk of travel; but that the King might not be left entirely without consolation, Zeno sent him Perseus and Philonides, both able men and wise.

That he might not go to the extent of incurring the King's displeasure Zeno frequently supped with Antigonus, but avoided any public familiarity with the monarch.

The Stoic shrank from crowds. Often when the porch was uncomfortably full of listeners the master would beg of some to retire. When he walked in the streets followed by importunate admirers he used every device to rid himself of the bores, and when he could accomplish his purpose in no other way he deliberately paid them money to go elsewhere. Unlike his contemporary, Epicurus, Zeno had no hesitancy in telling men what he thought of them in unmistakable words, and his aspect was as frigid as his reproofs. He was tall, very thin, swarthy of complexion and although it is said that he was afflicted with a deformity whereby his neck was bent to one side, he was commonly called the "Palm Tree of Egypt."

His way of life was in keeping with the rigor of his philosophy. He ate little. Honey, figs, a glass of sweet wine, some simple vegetables, these were sufficient for his keep. He was not ostentatious in dress, but he never reduced himself to the filthy level of the Cynics. Juvenal, the Satirist, said of the Stoics that the only difference between them and the Cynics was in dress; but Juvenal probably had the Romans in mind when he relieved himself of this irony. Zeno despised the luxury of the Greeks and despised, too, all floridity of speech. He was terse and concise, even to the point of affectation. "The syllables of the wise," he would say, "are brief."

The anecdotes related of him are for the most part commonplace. Some of the brightest may be quoted. Sitting at table one day with a noted glutton, Zeno appropriated the whole of an extraordinarily large fish to his own plate. The glutton stared. "What!" exclaimed Zeno, returning the stare. "Do you desire a monopoly of this sort of thing? You should certainly permit me for once to do what is an everyday trick of your own."

Invited to a dinner at which the guests of honor were certain ambassadors from Ptolemy, Zeno sat through the meal without once speaking. The amazed visitors at last asked him if he had no message for the King. "Tell Ptolemy," he replied, "that there is a man here who can be silent."

Once when urged by a youthful Athenian with questions far above the petitioner's understanding, Zeno placed a mirror before the boy with the query, "Is there any likeness between that countenance and the questions you are asking?"

Zeno admitted no degrees of virtue. A man was either virtuous or he was not. He paralleled the paradox of Achilles and the turtle thus: "There is nothing more true than truth, and nothing more false than falsity. And, too, there is nothing better than that which is good, and nothing worse than that which is bad. A man who is only one stadium from Canope is as little *in* Canope as a man who is 200 stadia from it; and so he who is guilty of a slight fault is no more *in virtue* than the greatest offender."

There is little original in the physics and metaphysics of the Stoics. They believed that matter and God were one; that the world was animated with a soul; that the earth was the center of the universe and that the fixed stars were turned around the earth by the motion of the heavens; that the origin of the world lay in its evolution out of a fiery substance and that after the lapse of time it would return to fire again; that above all, even above God, there was a power or a law or a force or a tendency which they called Fate or Destiny.

If the Stoics had depended upon the causal or the theoretical aspect of their philosophy they had failed.

But they precisely did nothing of the kind. They taught that Reason was most important and the intellect the only thing worthy of consideration. The body was fit only for contempt and the less the body obtruded itself upon the intellect the happier would be the man. But much as this may sound like Epicureanism the doctrine was far otherwise in the application. The doctrine of the Stoics especially manifested itself in a superb, even admirable, contempt for physical pain with results quite different from the repose of soul that followed Epicurean theory and practice. Pain was hailed with a kind of perverse delight by Zeno's pupils. It afforded them an opportunity of showing their Stoicism. In this we behold the development of the Cynical practice for Aristhenes sought relief from pain.

In the contrast between the death of the first Cynic and the first Stoic is observed the diametrically opposed conclusions of the two masters. Zeno died like a Stoic. At the age of ninety-eight he was walking one day from the Portico. He slipped and fell, breaking one of his fingers. This accident he interpreted as a warning from Fate that he had almost outlived his usefulness. Dashing his staff upon the ground he exclaimed: "Earth, you shall have what you have demanded." He sought his home and strangled himself. In his whole century of living he had not been ill a single hour. The Athenians, although they did not follow his notable example, honored their Stoic after his death. Brass monuments were raised in his image, and a decree was issued praising his worth and appointing a committee of five eminent citizens to prepare a suitable tribute to his memory.

The exemplars of Stoicism most honored to-day for that philosophy which faces the reverses of fortune with calm indifference are Roman; not Greek.

Our ideals of Roman statesmanship and soldiery are stoical. Zeno was the last of the philosophers in Greece who were to leave their cast among men; who were to be types. Greek thought was soon to become decrepit, to degenerate through the easy stages of skepticism and finical striving for originality into the mysticism and superstition of the neo-Platonists. Greek morals were decadent. The civilization of Hellas had reached its highest pitch and was already beginning to yield to that dispersive force which seems to attack all nations as well as individuals when the full measure of their growth has been attained. Greek art and Greek letters, too, were at their ebb. The mighty hand of Rome was even now lying upon the classic land of culture. The educated Roman was familiar with Greek literature and spoke the tongue itself. Sons of noble Roman families came to Athens and imbibed the philosophy of Stoicism at its very source and fountain. Stoicism became the national trait above all else with the Romans. Its spirit diffused itself down from the Roman general to the Roman private in the ranks; from the orator of the Senate to the boy in the gymnasium. The very word *Roman* itself conveys a meaning that can be conveyed by no other word except stoical. The Roman soldier obeyed orders with the precision of a machine. Spat upon by a mob, he was as unmindful, apparently as insensible of the insult as if he had been a man of stone. The Roman gladiator died with a smile upon his lips. The Roman father slew his child as a matter of duty. The Roman mother bred heroes of imperturbable visage.

Zeno had strangled himself. His death was the logical outcome of his philosophy. But if the soft effeminacy of the Greeks shrank from such unnatural conduct as this, Roman vigor found in it the very instrument of national progress it needed. To this peculiar fact is due the great success of Rome in the world's wars. True, there was no need of a Zeno in order that a Brutus might live and die. The Romans were all Stoics and they welcomed Stoicism because Zeno clothed with exact expression the spirit that had long animated Rome and gave to her the unique position she occupies in all history.

But with what sad results the Athenian's philosophy was applied upon a large scale may be seen in the long drawn out horror of Roman atrocity from his time until the fall of the Empire. From indifference for pain in one's self to the enjoyment of pain inflicted upon others is an easy step. In the unspeakable savagery of the arena, in the wild orgies of death and blood that fed the lusts of Rome to satiety, in suicide as a fashion and murder as a pastime, are seen the ripe fruits of the Stoic's wisdom. He who is inclined to admire the stoicism of the Athenian may well consider the ferocity of the Roman; and if Rome could never learn from Greece those arts and humanities for which she so admired the race she conquered, it is to be remembered that Zeno, who was a Roman at heart, cared little for poetry and less for painting. Holding high up as most important all that was intellectual, he brought forth in Rome a civilization—if such it can be called—in which the intellectual was less than nothing. Roman history is a history of war.

Pyrrho, the Skeptic, was born about 365 B. C., and died about 275. Perhaps no other word derived from the Greek is so abused as is skepticism. And while this is true, it is also true that no philosophy is so universally misunderstood. Skeptic not improperly has come to mean Doubter. The Greek word itself signifies a *looking through*. The Skeptics looked through things. Did they, perchance, see Truth? Skepticism was the natural outcome of the movement of Greek thought which we have been considering and which the intelligent reader has already followed with sufficient clearness to see for himself how one school and one set of opinions and speculations sprang from preceding ones.

Pyrrho professed to doubt everything. "But," said the opponents of the Skeptics, "if you admit that you doubt, you admit that you exist." "Ah," replied the Skeptics, "we even doubt that we doubt. There is no centainty."

Constantly twitted with the utter impracticability of his doctrine as a rule of life, Pyrrho did his best to live his philosophy and, in a measure, succeeded. He said that truth was hidden at the bottom of a well; that in so far as no man could know nothing for certain the only rational way of looking at things was to doubt everything. "Men," he would say, "regulate their lives by received opinions. Everything is done through habit and examined with reference to the laws and customs of a peculiar country. But whether these laws be good or bad, it is impossible to determine." He denied that there was such a thing as truth and placed not the slightest faith in the evidence of the senses.

His daily habits were ordered in conformity with these singular views. It is hard not to believe that Pyrrho was playing a part in these things. However skeptical one may be in the matter of opinion, Skepticism when carried into the actual affairs of one's life must always be a failure. Repeating to one's self the formula "Nothing is certain; there is no truth," will not make one insensible to hunger, cold or pain. Pyrrho was the first and the bravest of the Skeptics. He walked about as a man in a dream. He took special care not to avoid those things which most men shun. He was never known to turn aside for a rock or a ditch and he scorned to get out of the way of a wagon or a chariot. While he was true to his principles, he did not suffer the natural consequences of their practice, for his friends ever accompanied him and saw that he was not unduly exposed to danger. The sublime indifference with which he treated all persons must have made his personality intensely interesting. If, when in conversation with a man, his vis-a-vis turned about abruptly and left him alone, Pyrrho continued speaking until he had finished what he had to say. One day he was found talking to himself. When asked what he had been doing he replied: "Learning how to be good."

Now and then, however, his principles deserted him. This was especially true when on one occasion he was attacked by a vicious dog. The Skeptic attacked the brute in turn and drove him off. When upbraided for his lack of consistency, the sublime Pyrrho answered: "Ah, how difficult it is for a man to entirely divest himself of his prejudices!"

Overtaken by a storm at sea Pyrrho preserved great calmness of mind while his fellow passengers were shaken with fear. Pyrrho, pointing to a pig who was unconcernedly gorging itself with a meal, he told the fearful ones that wise men could find a noble example in the greedy little animal who feared neither winds nor wrecks. Again he passed through an extremely painful surgical operation without once wincing. Whatever else he was, Pyrrho was certainly without vanity or superstition. He was not above scrubbing his own house and performing tasks that were commonly the duties of slaves. It must be remembered that the Skeptic did all these things in the way of a practical application of his philosophy. There is manifest here that unhealthy striving after something new and striking that was brought out in the conduct of the Cynics and the Stoics. If there was ever a Stoic, so far as indifference to pain is concerned, that Stoic was the founder of Skepticism, but the motive to conduct in both philosophies is entirely different.

"Dancing," says Goldsmith, in his "Citizen of the World," "is a very respectable and genteel employment. Men have a greater chance for the encouragement of their heels than their heads. One who jumps up and flourishes his toes three times before he comes to the ground may have three hundred a year; he who flourishes them four times gets four hundred; but he who arrives at five times is inestimable, and may have any salary he thinks proper." Pyrrho's conduct was not so bad as that but there is no doubt that his eccentricities and his positively insane way of life did more to make his reputation worldwide than any intrinsic merit of his doctrine. There were as honest and as earnest doubters as Pyrrho before Pyrrho's time. But Pyrrho forever fastened his name to Skepticism by his outward life. He went on his way a sublime and immovable madman; or at least he played the part of a madman to perfection.

He was, too, a man of no mean ability with his hands. Early in life he studied painting, but he gave up art for philosophy and attached himself to Anaxarchus, whom he accompanied to India. In that land of mystery and yogism he met the fakirs and the gymnosophists and was, therefore, we may conclude, familiar with the mysticism and magic of Aryavarta. In no philosophy, not even the idealism of the Germans, is such heavy stress laid upon the insubstantiality of phenomena or material things, as in the Oriental. And what with the astounding doctrines he learned in India, together with the contradictory speculations of the Greeks, it is small wonder that Pyrrho rejected all standards of certitude and became the Skeptic he was. As opposed to the extreme of credulity and superstition Skepticism is not without its advantages, but the depths of insanity to which Skepticism was carried by Pyrrho were even worse than fatuity. For example, one day Anaxarchus, Pyrrho's master, fell in a ditch. He called aloud for help to his beloved and favorite pupil, who chanced to be passing at the moment, but Pyrrho went on his way, leaving the old man to his own devices. The philosopher who could do this was even greater than a Diogenes, and it is no wonder that the Greeks, who were straining for anything, no matter what, so long as it was not usual, erected monuments to Pyrrho and even gave him the keys of the city. Anaxarchus, by the way, highly commended his ungrateful pupil and pointed him out as a noble example of that complete apathy to which all men should aspire. This was the condition to which Greek morals had come in the days of the Skeptics.

But Greece was now suffering with a mania for novelty that presaged the end. The Eleans were so pleased that their city should have been the mother of such a notable man that they made Pyrrho (who believed nothing) the supreme ruler of their religious rites.

Great as was Pyrrho's disregard for the feelings, his customary nonchalance was more than once severely jolted. Becoming angered with the stupidity of his cook, who was preparing his dinner, the philosopher seized the spit and pursued the incompetent servant all the way to the Agora. Again, being completely unhorsed by the arguments of certain learned philosophers of Elis, he ran away from them in a rage, and tearing off his garments he swam the River Alpheus. Hard indeed was it even for a Pyrrho to rise above human prejudices.

The anecdotes here related of Pyrrho are cast aside by

Lewes as too absurd to require refutation. The reverse of this peculiar view is probably the more rational one. If we regard them as too evidently true to require proof we shall be nearer the mark. There is every reason to believe that Pyrrho conducted himself precisely as the old stories describe him.

Theatricalness was a national characteristic of the Greeks, and especially of the Greek philosophers. They not only taught, they *lived* their philosophy. For the same reason that we may credit the brutalities of Diogenes and the insanities of Pyrrho are we warranted in discrediting to the full the manifest slanders against Epicurus.

Pyrrhonistic philosophy is sound enough in that rational doubt at the basis of all scientific progress. The doctrines of the Skeptics have been expounded in more recent times in other phrases than such as remain of the celebrated Elean, but his position has never been strengthened by modern doubters. His physics, metaphysics, and morality may be briefly summarized by again quoting Fenelon: "The reason assigned by this philosopher why we should suspend our judgment is that all knowledge of things is relative and that we are totally ignorant of their essential nature. Willow leaves, for example, are sweet to goats and bitter to men. By the juice of hemlock quails are fattened and men are killed. Demophon, the attendant of Alexander, was scorched in the shade and frozen by the sun; and Andron of Argos traversed the sands of Lybia without needing drink. What is just in one country is unjust in another; and that which in one nation passes for virtue, in another is condemned as vice. Thus, among the Persians it was lawful for a man to marry his own daughter, while among the Greeks it is an abominable crime. Robbery is rewarded by the Sicilians and punished by the Greeks.

"Aristippus had one notion of pleasure, Antisthenes another, and Epicurus a third, differing from both. The doctrine of a God is received by some and rejected by others. The Egyptians bury their dead; the Indians burn them, and the Phœnicians throw them into ponds. What seems one color in the light of the sun, appears another color in the light of the moon and in candle-light assumes a color resembling neither. The dove's neck shifts colors with its position. What is on the right hand for one man is on the left for another. Greece is east of Italy and west of Persia. What would be a miracle in one country is a common event in another."

As a means of clearing the ground Skepticism is excellent. But the Skeptics, while perceiving the truth that knowledge is relative, were at a loss to do more than offer a negative philosophy. They did not inquire into the uses of the relative. Satisfying themselves that the human mind could never know things in their essence, they gave up the problem and lay supine. Skepticism *qua* Skepticism is even worse than useless. The childish conceptions of things offered by many of the Greek sages were infinitely more reassuring than the bald doubt of Pyrrho. Some of the Skeptics held that the only thing of which they could be at all certain was that they were certain of nothing; and some even went farther and taught that they could not even be certain of *that*.

In another section we shall have to consider Agnosticism, and we shall also see that Agnosticism is by no means the same as Pyrrhonism. We shall also see how from such a barren seed as Pyrrho sowed sprang that philosophy which is to-day the only philosophy that is accepted by scientific thinkers as rational and sound. We shall also be enabled to note, with satisfaction, that the history of the early philosophers is the story of that noble discontent whereby man's mind has risen from small beginnings and puny efforts to arrive at truth and at some trustworthy criterion of truth, to the large and safe structure of that knowledge which cements its first foundation stone on the bed rock and bottom of experience.

THE ALEXANDRIANS

Before proceeding to consider the philosophers of the Alexandrian schools, better known, perhaps, as the neo-Platonists, a very few words are needed to describe the death of philosophizing in Greece. The Academy was revived by Arcesilaus, who was an heir of the Skeptics and who improved upon his originals by becoming skeptical of phenomena and essence and all. He was given to disputing on both sides of a question, after the fashion of the Sophists. Reason, with him, was a plain proof that no judgment should be passed on any question whatever—not even on skepticism. Little is known of his life, and there is need for little. He was unable to see in all the grand speculations of his predecessors anything that was to be accounted worth thinking about the second time. So careful was he not to pass judgment upon anything that he never even wrote a book. He was given to epigrams, and liked to display himself through the medium of this form of wit.

Once when a youth was questioning him with more than usual pertinacity, Arcesilaus asked: "Won't someone stop his mouth with a flail?" A tippler was once arguing with Arcesilaus that one thing was not greater than another. To his logic the Academician replied by querying whether a cup holding a quart was not larger than one holding a pint. Arcesilaus, although he followed the Skeptics in philosophy, was a follower of Aristippus in practice. He was very extravagant in his habits, was very fond of good eating, and lived with two notorious courtesans at the same time. To justify his philosophy he quoted Pyrrho, and to justify his conduct he quoted Aristippus. Chian, a Stoic of his time, charged him with profligacy and with being a menace to the morals of Athenian youth.

Carneades, who was also one of the brilliant middle Academicians, was a native of Cyrene. He was more able as an orator than original as a philosopher. Most of his time was spent in refuting the doctrines of the Stoics, and he died in the ninetieth year of his age.

The schools of Alexandria are interesting chiefly because of the fact that they present the last of the philosophy and the philosophers that can be called Greek. Athens reached its highest ascendency in Aristotle. What was to follow was decadent. After the last attempt at philosophizing in the revival of the Academy by Arcesilaus, Greece was no longer the home of the wise men. Athenians had grown tired of the philosophers, and were not interested any more in their speculations or their posturing in public. The philosophers and their pupils went elsewhere. Alexandria was rising rapidly to be the center of science and learning, and thither Athenian students in search of masters journeyed. In Rome, too, the philosophers found that their speculations were listened to with rapture. But philosophy, save of the Stoic stamp, made no lasting impressions on the Romans. In Alexandria alone the speculators found a soil where their seeds would grow. By the side of the noble Museum, with its libraries and its men of science, there sprang up the half mystic, half skeptic religio-philosophy, which is called neo-Platonism. In this strange mixture of thought are to be found, jumbled together, the ideas of the Greek, the Jew, the Hindu, and the Egyptian.

First among the teachers whose names are conspicuous among the Alexandrine philosophers was Philo Judæus, or Philo the Jew, who lived about the time of Caligula. His philosophy was a kind of pantheism involving the Oriental notion of Emanation. Ammonius Saccas, another Alexandrian who lived about the beginning of the Third Century, left no written account of his philosophy, which has been preserved by Plotinus, his pupil, and who is accounted by some the greatest of the neo-Platonists. Plotinus traveled widely through the Orient, and brought back many of the mystic doctrines that were now being taught in the land of Gautama. He practised asceticism and scoffed at patriotism. Apollonius of Tyana taught the doctrine of metempsychosis, and was reputed to be a worker of miracles. One of the most celebrated of the neo-Platonists was Porphyry, a pupil of Plotinus, and even more widely remembered than his master. This fact is probably due to Porphyry's having removed to Rome, where, toward the end of the Third Century, he wrote vigorously against Christianity and was answered by such eminent Christians as Eusebius, Jerome and Theodosius.

With the passing of ancient philosophy came the rise of the new and inspiring religion which was soon to sweep over the Western world. The Christians, persecuted in their persons and property by the temporal powers of the world, were no less opposed intellectually, and their fiercest intellectual foes were the mystics of Alexandria and the latter's cousins in thought. While Christianity was producing some of its most brilliant apologists, Justin Martyr, Aristides, Athenagoras, Theophilus, Melito, Minucius Felix, and Lactantius, philosophy could do no better than offer its neo-Platonists, neo-Pythagoreans, its magicians, such as Hermes (the Thrice Master), and other compounders of Orientalism, who possess interest now only for the curious. Greek philosophy had passed into the stage where it welcomed the most unhealthy imagination as a beacon. The Gnostics flourished about this time. Indeed, the color of speculative thought had turned into the pale hue of moribundity, and philosophy passed away, to be resuscitated only after centuries of ignorance and intellectual languor in Europe.

RETROSPECT

Ancient philosophy was a failure in the very nature of things. It could never arrive at the truth as science has done, because it lacked the tools to work with. It is impossible to print a book without types and presses. One may think in a vague way of such a thing as a printed volume, a telephone, a steam engine. Men for ages have dreamed of the marvelous. But it is he who makes the miraculous commonplace whose work advances the world. A thousand dreamers are not of as much value to society as the man who devises movable types, a vibrating diaphragm, or a mechanical method of applying steam power. Modern science differs from ancient philosophy in this, that it does not seek to discover the undiscoverable. It does not attempt to demonstrate that which is undemonstrable, nor does it try to prove as existing that which does not exist.

Much of all this was attempted by some of the ancient and has been attempted by some of the modern philosophers. But while the ancients wasted time in fruitless as well as useless speculation, many of them, as we have already seen, made noble guesses. If Thales and the Ionians did not precisely describe the Natural Selection of Darwin and the Survival of the Fittest of Spencer, their conceptions of Differentiation were not ignoble. They were great pioneers in the unknown and strange lands of thought. They had no naturalists, no biologists, no geologists, to fall back upon. There was no Goethe or Lamarck or Treviranus for Thales or Anaximenes or Anaximander. There was no Linnæus for Aristotle. These early Greeks were blazers of the way. He was a bold man who, amid the polytheism of those times, could even think of a *primal matter,* though he thought that matter to be Water.

It has been well said that there is nothing the Greeks did not think of. They turned the human mind inside out and looked at its every fold and wrinkle. In the ten centuries—from Thales to the Alexandrians—Greek thought presents a complete cycle of growth, and the effort seems to have exhausted intellect for a time and left it helpless and unable to move. Thales began the movement with his speculations on evolution and dissolution—speculations that, though crude, are superb and inspiring. The physicists who followed him rapidly proliferated his thought until their ingenuity could suggest nothing more.

They had no microscopes. They did not know Kepler's three laws. There was no science of psychology to explain to them the mechanism of the nervous system and the action of the ganglion cells. There was no chemistry to show them analysis and synthesis. They had no micrometers or spectroscopes to measure the movements or analyze the constituents of the stars. Philology could not teach them the origin of races or comparative anatomy and palæontology the common plan of structure in the animated world and the resemblances between paleolithic and alluvial forms of life. They had no knowledge of nebulæ or of protista. They were barehanded and without the great mass of data which modern science has accumulated within a few hundred years, out of which to uprear the science and from which to generalize the highest truths possible to the mind. They were in the childhood of knowledge, and, childlike, they asked questions, often unanswerable, but always indicating the noblest of human aspirations, *to know*.

But children though they were, the Greeks thought, and by sheer force of thought they arrived at conclusions —however far from certainty—to which the sciences hinted at in the foregoing paragraph have now safely arrived. The mistake has been made by many to disparage the achievements of modern generalizers, such as Charles Darwin, Spencer, Huxley, and the Germans, by pointing out the similarity that exists between their work and some of the speculations of the Greeks. Such comparisons are, for the most part, drawn by men who are as unfamiliar with the doctrines of modern evolution as they are with the character and nature of Greek speculation. In the cycle of one thousand years run by Greek thought we may observe germs of almost all philosophies and systems and of many of the conclusions of science.

From the primal matter of Thales, Greek speculation runs through the phases of cosmology, idealism, dialectics, skepticism, and mysticism. The physics and metaphysics of the pre-Socratic speculators were dethroned by that Athenian master who insisted on their inutility, and from whose iconoclasm, by a strange perversity of things, sprang the supreme metaphysics of Plato and the supreme physics of Aristotle. The innumerable phases of thought which followed, and complicated the intellectual status of Greece, in turn produced the Epicureans and the Stoics. And the cycle reaches its returning phase with Pyrrho, who, looking for demonstration and demanding definitions with a persistence and pertinacity beside which Socrates is weak, casts all aside as uncertain and futile and holds that things can be known to the mind neither in their phenomena nor in their essences.

Looking at the question from whatever side we will, the Greeks cannot be said to have been the originals of those patient investigators who have builded so surely for humanity. Professor Lester F. Ward wisely says in his work already quoted that there was no reason why the Greek mind was not as capable as is mind now. It lacked only experience, and if its influence failed to generate a growth such as we now see in science, it was because the Greeks were not surrounded by the peculiar environment, physical and psychic, that gave to the world a Bacon and, perhaps, a Giordano Bruno. Greek thought stands alone in intellectual development—a complete mosaic, its design touching, but distinct from, other designs; or, to vary the metaphor, it is an episode of the history of intellect complete in itself, but by no means essential to the narrative. Greek influence of any kind but the most tenuously indirect, is absent from the movement that began with Bacon and finds in Spencer its as yet most advanced development.

It is not here contended that modern science and philosophy would be just as they are did not Greek science and philosophy live; but the influence of the Greeks on European thought—if not on European civilization and political history—is not perhaps as important as it has been made out to be. Few will have the boldness to trace the beginning and advance of modern science to the speculations of the Brahmins and the Buddhists, and the latter are as pertinent to the matter as are the speculations of the Greeks.

The case is different, however, with Greek letters and art. But if we have no hesitancy in acknowledging our debt to these it will be hardly necessary to deprive modern investigation and achievement of the credit that is due to them. The Greeks guessed; the moderns have observed and demonstrated. At the same time, the ancient philosophers have left with us words which, however misused and misunderstood, are permanent symbols; and names which, however shifted and transmuted from their original derivations, will ever serve as reminders of the imperishable fame of the schools.

AVERROES AND AL GAZALI

While the Arabians have been celebrated for their science, not much can be said for their metaphysics. Liberty of thought was not encouraged by the stern religion of Islam. The spell of the Koran was over all. So long as philosophy did not teach doctrines in contravention of the sacred book, philosophy might thrive. The moment its speculations led it away from the sacred book, that moment it was doomed. The Caliph Omar ordered the vast treasures of the Alexandrian library destroyed. He said: "If these books disagree with the Koran they are dangerous; if they agree with the Koran they are useless." The magnificent collection was used to heat the public baths, and the fire was maintained by the books for six months, with what loss to man we will never know.

The Caliphs were not averse to lending their assistance to physical science. They encouraged schools. They were fond of wise men. But they were, above all, Mohammedans. The few thinkers who had the courage to originate speculations of their own, or to borrow from the infidels, were persecuted. It was not to be expected, therefore, that philosophy could thrive under a religion which allowed it so little play. The Arabs are distinguished most for their sciences, their chemistry, their astronomy, their mathematics. But they produced some world-famous philosophers, and these are worth remembering here.

Averroes of Cordova, or Cordúba, is probably the most noted of the Arabians. His teachings, or such of them as have remained, are preserved in the Hebrew and have been freely commented upon by scholars. He borrowed largely from Aristotle, and, accounting for the peculiar society in which he lived, was more or less free from Islamite influence. This great Arab was born at Cordova, the brilliant capital of the Saracen possessions in Spain. The date of his birth was 1126, and he died in Morocco in 1198. No city in modern Spain can be compared in beauty, intelligence or in culture with the extinct seat of the Saracenic Empire in Europe. Surrounded by the crass ignorance and the degraded state of the cities about it, Cordova flourished, a brilliant spot amid the general blackness in which its neighbors were plunged. Its streets were brilliantly illuminated, and it is said that one of its boulevards was lined on either side for one half a mile with lamps that could vie in beauty and power with modern gas. In the gardens of the Caliphs flashed fountains of quicksilver, and Cordovans were housed in clean and sanitary domiciles, while Cordovan savants pursued their studies in well equipped laboratories and observatories.

Averroes sprang from a noble family, and his boyhood and youth were spent in those pursuits suited to his rank and future prospects. His preceptors trained his mind in the law of the Koran and Mohammed. He was taught to master the theology of the Arabs, and he was not unacquainted with the philosophy of the Greeks and especially of Aristotle, who was accounted the greatest of the philosophers by the Saracens. The advancement of the young Arab was rapid, and he amazed his masters with his precocity and gravity. When his philosophical and theological training was completed, Averroes turned his attention to the sciences and became as proficient in them as he had shown himself in his efforts at more abstruse problems. He was an expert in mathematics, and soon mastered medicine. Now, Averroes was designed by his father for a political career. Statesmanship with the Saracens was not the simple matter it is with us. They did not deem it wise that the man who ruled others should be less informed than his subjects. Averroes, to fit himself for statesmanship, mastered all the learning of his time. He was a wise man.

The father of Averroes was the chief magistrate of Cordova. It was settled that the son should succeed, and when the father died the philosopher was elevated to the important post thus left vacant. With his accession to the chair of the magistracy came the beginning of the greatness of Averroes, and alas! also the beginning of his woe. His biography is almost as like a romance or a fairy tale as is any of the stories in the "Arabian Nights Entertainment." It is full of surprises, of sudden transitions, of strange transformations. As a judge Averroes ruled with the wisdom of Solomon. His knowledge, his ability, and his attainments became proverbs. He was looked up to as the master mind in Spain, having all the sapiency of the ancients with his own vast culture added. His fame went abroad. He was admired by Mohammedan and by Christian alike, and he is the one Mohammedan whose life presents a parallel, in many of its aspects at least, with the lives of revered Christian philosophers and reformers.

Word of the greatness of Averroes' wisdom traveled East and came to the ears of the Caliph Almansor, the noted Mauritanean patron of learning. This wise and pious king felt the need of some brilliant master, such as the Cordovan jurist and scholar, for the presidency of a new school of science that had just been opened, under the patronage of the caliphate, at Morocco. An embassy was dispatched to Cordova, and a tender of the presidency of the college was made to the judge. Averroes was delighted with this substantial compliment to his probity and erudition, and readily accepted the commission. He went to Morocco and spent some time in organizing the new institution of education. The Caliph, meanwhile, conferred upon the scholar numerous high dignities and decorations, and did not even ask him to relinquish his rights to his offices at home.

With his work thoroughly done and the school well launched on its mission, Averroes expressed the desire to return to the city of his birth and resume his official position among his own people and kinsmen. The request was not denied him, and the philosopher went back to Cordova full of honors and more famous than ever.

But what time he was away in Morocco his enemies had not been idle in Cordova. It was not that Averroes deserved to have enemies, for he was a very just and generous man. But his tremendous successes at the court of the King inspired his former rivals with resentment and jealousy, and it was necessary that something be done to degrade him. In this emergency an old but none the less despicable trick was resorted to. Averroes' character was spotless. His loyalty was unquestioned. His attainments as a man of science and a philosopher were undisputed. The administration of his office was pure. How, then, could he be attacked? The answer is easy: He was charged with heresy. But to accuse one of heresy and to prove the charge are not always the same, and to establish a ground of proof the plotters sent to the philosopher a number of *quasi* pupils who were in reality spies. These pupils, under the direction of their skilled masters, propounded question after question to the judge. He answered all queries without suspicion. Notes of his words and opinions were taken down on the spot, and these were worked up systematically at their leisure by his enemies. The whole body of proof thus manufactured was presented to the Caliph. Perhaps here and there a point was strained. Who knows? At all events, the Caliph was seriously disturbed in mind and was persuaded that some punishment must be administered to the heretic, the more so as the clique had not failed to make a great scandal of the matter in Cordova.

The Caliph did not demand the life of the offender, but the punishment was more severe than even death could have been to a man of Averroes' birth and education. He was decreed a heretic, stripped of all his offices and titles, his wealth forfeited to the state, and he was condemned to spend the remainder of his life in the ghetto of Cordova, among the Jews, who hated him.

This sentence carried more with it than appears in the reading of it. For all Cordovans who were good Mohammedans were expected to punish the heretic by their taunts and sneers, and by even more degrading obliquy. The philosopher, who, in spite of all this persecution, did not desert his daily religious practises, was pelted with stones and filth as his way led to the mosque. Even the children took part in these demonstrations, and those friends of Averroes who could not be persuaded to join the general execration of their beloved master were compelled to leave the city to escape being politically involved.

Averroes, not willing to retort upon his persecutors, as would a Cynic, or relieve himself of the ignominy of his position by suicide, as would a Stoic, fled from Cordova and hid himself in Fez. Thither he was followed and captured. Almansor, being in doubt what disposition to make of his former favorite, took refuge in a council of state. As is usual in such conclaves, the decision was determined, not by a sense of justice on the part of the judges, but by selfish considerations. The radical religionists were for putting the dangerous blasphemer out of the way without words. The more sensible of the council reflected that a vote for death might be made at the price of their own heads, for Averroes was not without friends who might draw the line at his literal decapitation. So the conservatives won by proposing to set Averroes free if the philosopher would consent to publicly recant his follies and his heresies, the alternative being death. The persecuted philosopher, like many a good man before and after him, preferred life with external stultification to death with a martyr's crown or a Stoic's fame. With all the nauseating circumstance of such affairs, amid loudly and insultingly put questions by "holy men" and "true believers," who never even once dreamed that Allah was *not* Allah, Averroes confessed his crime of heresy and expressed his thrice felt faith in anything whatsoever that was willed. He was then permitted to go.

But, as is the case always in these remarkable and interesting events, by some curious neglect of that nicety of justice which is so admirable when found, his judges forgot to restore him his own property when they mercifully allowed him to keep his own life. Averroes returned to Cordova a pauper.

The bitter of life such as was now his was doubtless mixed with the sweet of friendship. But a heretic, even though he be not torn to pieces or burned with fagots, is never an object of kind consideration among a truly religious people, and Averroes' recantation did not buy him fair words. For years he subsisted in poverty and suffered the contemptuous slings of the vile and ignorānt. We would like to present Averroes as dying a noble death, flinging back in the teeth of his cruel tormentors the lofty scorn of his defiance, and immolating himself a sacrifice on the altar of intellectual liberty. Such an ending would be traditional, and would furnish another theme for orators to mouth upon.

Unfortunately for the dramatic literature of philosophy, the death of Averroes was like nothing of the kind. The good people of Cordova at first ceased their imprecations through sheer weariness. It was a duty that wore upon them and grew flat. Then they began to think that their philosopher was not after all such a monster as some interested persons had made him out. Presently they began to realize that Averroes in his day of power was a fair and a just judge, whose decisions plaintiff and defendant both pronounced right. And this reaction became stronger when people met and compared the administration of the man who was now filling Averroes' old function. The spark waxed into a flame, and a deputation was sent to the Caliph asking that the old judge be restored. Again Almansor shifted responsibility from his own shoulders by consulting his statesmen, and again these self-centered gentlemen voted the way the King and the people demanded. Averroes was returned to power, and all his honors restored.

The mortal with average passions will now be prepared to hear how Averroes became revenged upon the men who had been the cause of all his suffering. Again must the biography vary from the customary. Restored to power, Averroes ruled fairly and justly as of old, wiping out all grudges—if indeed he ever cherished any—and giving the Cordovans an honest administration quite apart from personal considerations.

The world has never produced a gentler or juster man than the sage of Cordova. He was possessed of infinite patience and forgiveness. Fortunate in his great wealth, he was as generous as he was opulent. He gave freely to scholars and men of science who needed money for the leisure to study. When those about him expressed surprise at the astounding fact that the gifts he made were divided equally between his best friends and his bitterest opponents, he would say: "To help one we love is merely following the promptings of common nature. But when we give to a deserving man when he is at enmity with us, we rise above Nature and assimilate ourselves with Virtue."

He condemned the custom and law of capital punishment, and was never known to inflict the sentence of death upon any fellow man. Once, when delivering a speech in public, an opponent approached and, in order to disconcert the philosopher, whispered into his ear words of the most iniquitous reprobation. Averroes listened with great interest, apparently as if the man were delivering important messages of state, and bowing, with a knowing gesture, continued his speech. This enemy became his friend.

Averroes was temperate, continent, pure in habit and speech, urbane and courteous to all men, compassionate and tender. His character is equaled by few of the really great men of any age; it is excelled by none.

After a short service in the judicial capacity at Cordova, he took his chattels and retired to Morocco, about which his earliest and most happy associations centered. Surrounded by friends who had no thought of heresy or recantation; blessed with goodly and pleasant things and faces about him; serene to the last in mind and in the possession of that philosophy which made his life and works conspicuous in manners and morals, he died at the ripe age of seventy-two. He was veritably "Abou ben Adhem," whose name leads all his tribe.

The name of the Arabian philosopher that is ever coupled with that of Averroes is Al Gazel, or, as he is more generally known, Al Gazali. The two philosophers were widely different in their teachings. Averroes was the moralist; Al Gazali the metaphysician. As a philosopher Gazali was a thorough skeptic, but it must not be supposed that he was a skeptic like Pyrrho. On the contrary, he was imbued with a deep sense of the religious. His own human name was Abou-Hamed-Mohommed-ibn-Mohammed. His name Gazali was derived from the trade of his father, who was a thread merchant.

Gazali was born at Totus and died in Khorrasan. The date of his birth is 1038; that of his death 1111. He was highly honored among the Mohammedans and taught in Bagdad as a professor of theology. His following was very large, and he was never interfered with for the reason that not even his most malignant foe could accuse him of irreverence or heresy. The philosophy of Gazali consists in his almost pathetic attempt to show that philosophizing is a fool's dream, and that nothing can be wrought out by the efforts of Reason. He is par excellence the skeptic of the Arabians. Western students have become familiar with the views of Gazali through a French translation of some of his works—the whole quantity is enormous—made by M. Schmölders.

The Arabian, after carefully considering the questions of mind and matter from all standpoints, gives up the problem in despair. Gazali himself explains all the emotions and counter-emotions he passed through before he came to the decision that philosophy was futile. Long thought and careful meditation landed him in utter uncertainty and doubt. He doubted the validity of sensational evidence; doubted that there could be any starting point, any first principle upon which Reason could build. His influence on Arabian metaphysics was deadly, the more so that, in casting aside Intelligence and Reason as safe guides, he turned to God and Religion as the only consolation for the inquiring mind. The two books from which his opinions are judged are entitled "Tendency of Philosophers," and the "Overthrow of Philosophy." In the first book he prepares the reader for what is to be expected in the second. In the introductory work Gazali writes as the expositor. He sums up, in a manner that has been pronounced clear and accurate, the views of philosophers in general and the various systems that had been thought out to that time, together with a summarization of the sciences. It is only just, he explains, to state what one is about to destroy before proceeding to destroy it. With his work thus planned Gazali launches into his second book and addresses himself to the overthrow of the philosophers he has outlined.

His arguments in the "Overthrow"—called *Tchafot* in the original—remind one of the logic of the Pyrrhonists. The fact that two things co-exist, he argues, does not necessarily mean that one of them is the effect of the other. A man born blind and who has his sight restored to him, but in such manner as to be able to use his eyes only in the daytime, would never attribute color to the light of the sun, but would believe that colors were presented directly to him without the agency of light. Gazali denied the truth of what are called laws of nature. If we see certain effects following certain causes invariably, these effects are not therefore inevitable, but follow only because God wills that it shall be so. This is a denial of causality, as the principle is now generally understood. We have knowledge, according to the Arabian, of cause and effect because God has knowledge of past and future (i. e., of his own will), and permits us to partake in some degree of that knowledge and prescience. But, to Gazali's way of thinking, it is worse than absurd to hold that there can be any principle or any law in nature which acts independent of the Supreme Will. Such a tenet would be, for him, the equivalent of holding that the Supreme itself may be fettered.

All cause and effect are cause and effect only by the will of God. For example, cotton, which we know to be one of the most inflammable of substances, could readily take on some property by which it would become non-inflammable and yet not cease to be cotton if God so willed it. The weakness of his argument here is plain, and is due solely to Gazali's neglect of definitions. If he will admit that cotton when saturated with water is still cotton, no miracle need be introduced to make it non-inflammable. On the other hand, if one of the definitive properties of cotton be inflammability then, evidently, no miracle can make the inflammable non-inflammable. Many of the arguments of Gazali are of a similar nature. Averroes charged him with sophistry and lack of faith. Whatever basis the Cordovan may have for this opinion is of no importance. It is true, however, that Gazali, through this kind of ratiocination labored with himself until his mind was in a condition to accept Soufism. Modern Soufism is not far different from what Soufism was in the days of the Bagdad doctor. Attempts have been made even to introduce it into America, and there are a few Oriental Soufis now in this country. But they have had little success.

Gazali, who could not trust to the evidence of his senses in the slightest degree, joyfully accepted a mysticism that pressed him into enormities of credulity. Rejecting the philosophies of all schools and becoming convinced that he could place faith in nothing that was tangible or visible, he placed unbounded faith in the fantasies and illusions of ecstasy. Spurning Reason, he plunged into Imagination. If Gazali has been praised as having been more brilliant than Averroes there can be no question as to which of the two Arabians, the Asiatic or the European, was the more useful to his fellow-man. Gazali and Averroes were the two most important of the Arabian philosophers. Notice of others in that class is not necessary here.

THE SCHOLASTICS

All that is left of Scholasticism is the names of a few men who were the redoubtable knights of the terrible war of words that raged in Europe from the Eleventh to the Fourteenth Century. Fortunately for the reader of this work it so happens that the three most eminent leaders in Scholastic philosophy present the most interesting material for biography among the large number of doctors who engaged in the "great dispute." These three are Abelard, Thomas Aquinas, and Dun Scotus. In the lives of most of the philosophers we have been considering it has been difficult to separate, when they are treated biographically as they are here, what they thought from what they did. With the most famous of the Scholastics the case is different. The life of Abelard and in some degree the life of Aquinas, are romantic to a degree that invites the pen of the novelist rather than that of the historian.

Even if it were desirable here to describe the philosophy of the schools in any adequate manner, the task—a task indeed—would be quite impossible. It will be sufficient, therefore, to sketch in the most rapid way the bare outlines of the supremely involved and interminable doctrines, the body of which is known as Scholasticism. This would be, in a way, necessary as an introduction to the biographies of the three great men already indicated.

To Scholasticism there is no definite beginning or end. The schools founded by Charlemagne found the movement well on its way, and with these schools came the rapid rise and development of Scholastic thought. If the Scholastic period is said to have begun in the Ninth Century and ended in the Fifteenth, a fair estimate of the length of its life will have been made. Its influence extended here and there down to the Seventeenth Century, but the thought of the schoolmen may be said to have totally disappeared as an intellectual power with the rise of science and the application of the New Method.

To-day Scholasticism is regarded as a curiosity of philosophical history. Perhaps no man living has mastered it, and those who have attempted the work have had, perforce, to relinquish it because of its magnitude. The student of philosophy who is wise will be content with such expositions of Scholasticism as he can procure at second hand. The writings of the two leading disputationists, Thomas and Duns, alone aggregate nearly fifty tremendous folio volumes, the mere aspect of any one of which is enough to dampen the enthusiasm of any but the most recklessly courageous. Many scholars who have found the metephysics of the ancient and the modern philosophers easy of understanding have surrendered to the obscurity, or the inanity, whichever it may be, of the Scholastics. It is possible, however, to present here the principal point in dispute, and to describe roughly some of the speculations of the schoolmen.

When the Scholastics speculated, Theology dominated thought. The church was supreme in Europe and the philosophers were all of them divines. They accepted without question the dogmas of the Christian religion as it was then taught from Rome, and in no way sought to conflict with what they unqualifiedly adhered to as absolute truth.

But without the domain of Theology there were many questions upon which it was perfectly lawful for men to exercise the intellect, and these matters were the subject of much of the speculation of the schoolmen. But this was not all. Mediæval metaphysics partakes more of the character of theology than of philosophy. The schoolmen were all theologians, and while they were free to philosophize to the extent of their desire concerning non-theological matters, they even sought to treat of all questions from the theological point of view. They adopted the Aristotelian logic, but they concerned themselves not at all, or only in the most unconcerned of ways, with problems that fascinated the Greek master.

For them nature had little or no interest. The great panorama of the visible world with its myriad mysteries offering themselves for attack; processes of organic growth and development; the causes of birth and death among men and animals; the origin and beginning of the universe, if it had any; the phenomena of the rise and fall of nations and races; the causes of religious heterogeneity; the origin of government and political authority; the inequality of classes and castes; the shape of the solar system and the distance of the stars; changes of the seasons, and the mystery of lightning-flash and thunderbolt; the superiority of man over other living creatures; the amazing intricacies of organic structure; the fall of rain, hail, and snow; the river flowing to the sea and the passing cloud; the budding of a rose or the habits of the bee; the mountain range and the sea; fire, water, earth, air—all these things were pre-accounted for and explained to the mind of the Scholastic. Why speculate or inquire into matters which were already settled and established?

The Scholastic had other affairs to look after. Theology had already irrevocably decided the origin and purpose of all things. Scholasticism gave itself up to another dispute. After centuries of thought it had defined the question at issue. That question, reappearing under a new name, was only, after all, the old point of departure between Plato and Aristotle. The dispute between the two leading schools of the middle ages has been called *Nominalism* vs. *Realism,* or *Universals* vs. *Particulars.* The question was, Are Ideas copies of Things or are Things copies of Ideas? Plato, it will be remembered, taught that Color existed *per se,* independent quite of particular reds, greens, or blues inherent in different objects. Aristotle taught that Plato's independent existence of Color was only an imaginary existence; that there could be no color apart from a thing colored; that Man did not exist except in the sense of the totality of individual men; that there could be no Virtue without something or some person that was virtuous.

The Realists were those who held to the Platonic teaching. They believed, or contended, that Virtue, Color, Truth, were *Realities* abiding in themselves as entities apart from things or persons partaking of their nature. The Nominalists held to the Aristotelian teaching. They contended that Virtue, Color, Truth, were mere names by which the qualities of the virtues, the chromatic, or the truthful were generalized. That there should be any *dispute* about such a question, as we have already seen, seems absurd. Yet it is a fact that the Scholastics wrangled and warred over it until they reached a point little short of frenzy. For a time the Realists triumphed, but in the end the Nominalists appeared to have won the battle, not improbably because their opponents were the first to grow weary from pure disputation.

Such was the grand dispute. But incidentally the Scholastics disputed about everything else which the dogmas of the church had not lifted from the possibility of discussion. The traditional example of the learned doctors debating by the hour as to the precise number of angels who could stand on the point of a needle is not in the slightest an exaggerated statement of the facts. The Scholastics wrangled about everything to which philosophers nowadays pay no attention whatever, and wholly slighted those matters that are now considered the most important pabulam of thought. Their collected works would fill a library. Those parts of their doctrines that are intelligible are of a nature such as has been just described. Their mighty quarrels about the definitions of microscopically small minutiæ are often totally without meaning or of any value whatever. The doctors were very learned indeed; but they were learned only in metaphysics, and the most erudite of them all did not know as much truth about nature as a first year academic knows now. On the other hand, the most erudite savant of to-day would be an ignoramus if judged by the standard of the Middle Ages.

All writers, or almost all, have ridiculed the Scholastics, and perhaps unjustly. The same kind of ridicule has been applied and is now applied to students of special sciences who split hairs after their own fashion. The peculiar vulnerability of the schoolmen lies in their endless and purposeless disputations about insignificant and chiefly imaginary differences. They hurled logomachy at logomachy; emitted words as hail; fought like sparrows over a hay seed, and with as deafening a loquacity; produced thousands of volumes of arguments; wrought themselves into an *extasis* of dialectics and then lay down and died without having added one jot to human knowledge.

But, as Lewes remarks, beneath all this verbosity were the deepest problems of ontology, and the Scholastics, if they did nothing else, kept alive the sparks of intellect that were soon to blossom into flame. That they did not permit themselves to soar into the clear blue of speculation was because they sought to conform themselves to accepted dogma. To-day the most eminent of Christian thinkers do not hesitate to give free rein to speculation based on the truths established by science. The church of the middle ages encouraged philosophy as the handmaid of religion. The church, fashioning herself to the times, now declares that the new handmaid of Religion is Science.

Of the Scholastics the one man whose name is most widely known to-day was Abelard. His fame rests not so much upon his teachings or his originality, of which he had little, as upon the romance of his life. With that fame is ever entwined the name of Heloise, the brilliant woman who loved him and was beloved again. Alexander Pope, the poet, has done more than any other one man to popularize the name and story of Abelard. The poetic beauty of Pope's epistle, "Eloisa to Abelard," is not marred by whatever historical inaccuracies that may have crept into the text. Hallam, the historian, charges Pope with grave injustice to Heloise by "putting into her mouth the sentiments of a coarse and abandoned woman," but the condemnation of the critic has not detracted from the great beauty of the poem.

Peter Abelard was the son of a noble family of Brittany, and was born at Nantes in 1079. At that time the King of France was Philip I. The life and writings of Abelard have been the subject of considerable labor on the part of the French authors Cousin, Remusat, and Guizot. From these three authorities the various biographies that have been written of the philosopher have been made up.

As a youth Abelard gave promise of greatness, or at least of distinction. He was ardent in his studies, courteous in manner, and noble in bearing as in birth. The attractions of his person, the striking beauty of his features, and the melody of his voice made him conspicuous among his fellows. In Abelard's time the schools were already flourishing, and almost as a mere boy he was sent to Paris to attend the lectures of William of Champeaux, whose school drew pupils from all parts of Europe. Abelard was not long winning the esteem of master and pupils, and was soon making his influence felt in Paris. The acquisition of fame then was far easier than now. All that was needed to make one's self a center of attraction was a little eloquence, quickness of wit, and some deviation from current doctrines. Abelard possessed all of these qualifications in a marked degree. William was archdeacon of Paris and the head of the Parisian School, withal, an important personage. The new pupil was a mere youth, but a nobleman, handsome in appearance, quick-witted, precociously mature in mind, and possessed of a courage that feared nothing. Now, the deacon was a Realist, and Abelard fretted and chafed listening to his expositions. Statements from the chair were challenged fearlessly by the youth from Brittany, and in these disputes between master and pupil the dialectics of the former was often put to rout by the logic of the latter.

This violent dissention from the teachings of the school was the cause of much trouble in the breast of the professor. Abelard championed doctrines which had been only recently the cause of severe censure from Rome and had almost resulted in the excommunication of Roscellinus. William warned Abelard of the dangerous ground he was treading upon and defined some of the opinions of the young logician as heretical. At the end of two years Abelard left Paris and opened a school of metaphysics at Melun and afterward at Corbeil. For a time after this he traveled, and when he returned to Paris it was not as a pupil seeking light, but as an acknowledged master. On the occasion of this visit to the capital Abelard met his former professor in a public debate with such force that William was obliged to recast his philosophy and admit the fallacy of his logic. This victory gave Abelard tremendous prestige, and he at once took his place at the head of the French philosophers. As a lecturer no one approached him. His musical voice alone was enough to attract listeners. But added to this was a happy faculty of speaking to the point and making himself understood. Abandoning the method of dry discussion he interspersed illustration, quotation, and anecdote with such charm and pertinence as drew all classes of persons to his discourses.

After conquering all the heights of philosophy, Abelard now turned his attention to theology, and his treatment of this subject was as refreshingly novel as had been his way of philosophizing. He scorned precedents of exegesis and cut out new paths for himself which fascinated the throng but which vinegared the brows of the old men who trod the beaten way of thought. This was especially true of Anselm of Canterbury, a theologian of the old, dry school, who could not put up with young Abelard's bold playing with fire; an aversion only strengthened by the young man's personal attractions, and especially by the tremendous success he was having with his new theology.

This was the period of Abelard's glory. He was at the acme of his career. At forty he had accomplished all that his ambition had hoped to achieve by old age. He had now but to enjoy the spoils of his intellectual conquests. The church lay before him with its lofty rewards for learning and piety, and Abelard had not yet entered holy orders. This was the situation when the young philosopher and divine met Heloise, and straightway his philosophy and theology tumbled about his head. Realism and Nominalism, theology and metaphysics evaporated before the light of the loved one's eyes.

Abelard at this time was about forty. Some of his critics blame him for having at that age fallen in love. But if it is remembered that the philosopher's youth had been given to study, with never a thought of woman, that his contemplative mind had never felt the shock of sex, and that he had never known the impulse of that most tremendous force that is at the bottom of the maintenance of all life, the love of Abelard for Heloise will be clear. The love of the sexes is the most important matter, next to nutrition, with which man has to do. It is only the fool who underestimates its gravity. It is not for all his philosophy or his theology or his erudition or his eloquence that the world is interested in Abelard. The world remembers his philosophy because he loved Heloise and because Heloise loved him. Who knows what he taught? Who does not know how he suffered?

When Abelard met Heloise she was under twenty. Her beauty is said to have been little short of perfection. In family she was the equal of the theologian. The niece of a well-known ecclesiastic, her education was regarded with the utmost care. She was possessed of extraordinary genius, and the charm of her person was excelled if anything by the brilliancy of her mental attainments. She was deeply versed in the subjects with which Abelard was most concerned; was acquainted with Abelard's own thought and teaching, and, added to all this, was a true and fervent piety that regarded life and human conduct in their most serious aspect. To use a somewhat common phrase, yet one under which lies much sober truth, Heloise and Abelard were "made for each other."

The inevitable happened, of course. Love conquered, and Heloise and Abelard were married. The marriage was secret, and to this fact is due much of the aspersion which has been cast upon the characters of the philosopher and his lady. Color was given to these stories by the subsequent act of Heloise, who denied on her oath that Abelard was her husband. This complete and womanlike sacrifice of self was made to remove from Abelard's path the one obstacle that would stand in the way of his ecclesiastical preferment.

It is possible that much of the sympathy that has been poured out upon these two lovers has been wasted. There was no reason why they should not have remained united, and there is no doubt they would have done so had they not both prized the monastic above the marital life. It was common for man and wife to separate and devote themselves to religion. The sentiments which Pope expresses for Heloise in his famous epistle are, it must be borne in mind, the sentiments of Heloise as filtered through the imagination of a poet under twenty. Heloise retired to a convent and Abelard continued to philosophize and preach. The affair with Heloise did not injure him in his career, whereas his marriage with her, had it been admitted, might have been the end of his greatness and perhaps his loss to fame.

Abelard rose to great importance as a theologian. According to Guizot, one pope, nineteen cardinals, and fifty bishops and archbishops were trained in his school, to say nothing of the brilliant scholars with whom the Princes of the church had more than once to reckon. But his early tendency to independent thinking brought upon him the condemnation of the church. In 1121 he was condemned for heresy and ordered to burn a book he had just published. It was charged that the doctrines in this treatise were counter to the dogma of the trinity. In 1122 he retired to Troyes, where he built his celebrated oratory of the Paraclete. He was again disturbed by threats of persecution, and three years later he returned to his home in Brittany, where he accepted the position of Abbot of St. Gildas, tendered him by the Duke of the province. Meanwhile, he presented the Paraclete to Heloise, who became its abbess. There she died. The year 1136 finds Abelard again in Paris, the object of bitter persecution. In 1140 he was condemned to confinement for life, but was pardoned by the Pope. He died in 1142.

Thomas Aquinas, or Thomas of Aquin, is the ideal of the churchman and one of the most illustrious of the Scholastics. Fortunately for his ecclesiastical status, his temptations came early in life, and his middle age was so taken up with his studies and his monastic surroundings that he was entirely free from the allurements that beset Abelard in the beautiful mind and person of his Heloise.

As Abelard was the greatest philosopher and theologian of his age, so was Thomas the greatest of his own. His family were the distinguished, noble, and powerful Aquins. He was born about the year 1225, and was the youngest of a large number of children. His father, Rodolf, sent the future doctor to the Monte Cassino monastery at the tender age of five. For six years young Thomas was trained by the monks in this institution, and at the end of that time he was transferred to the new and famous university founded by Frederick II at Naples. There he studied under influences the most religious until he was seventeen. At this age Thomas had made up his mind that he would join the order of the Dominicans, and it was this decision that brought him the first of his troubles. His ecclesiastical aspirations were most bitterly opposed by his family. When Thomas made known his intentions of becoming a monk the Aquins laid plans to spirit him away, but the Dominicans were before them. Thomas was being conducted to France when his two brothers succeeded in taking him a prisoner and in bringing him home safely to the castle of his father.

Now, these brothers were older and far more worldly than the collegian. They were soldiers who had small taste for books or metaphysics and they endeavored by every wile to wean the youth from his devotions and meditations. In this they were ably aided by their mother and by their sisters. Thomas was made a prisoner in the Aquin hold and given to understand that he could never have his liberty until he could decide to give up his dreams of a religious life and conform himself to the military traditions of his noble family. But these simple gentlemen found in their boy brother a determination more fixed than their own, and a will which neither cajolery nor threat could weaken or break down.

Finding force met with force of a stronger kind, the brothers sought to ruin the youth's ambition by a trick as contemptible as it was unsuccessful. They procured the assistance of a beautiful woman who made herself a tool in their hands and abetted them in their efforts to turn Thomas aside from his resolve. Through what torture the simple-minded boy passed while he was beset by this peculiar device may be known by the nearly tragic ending which came of it. It is said that the future "angel of the schools" was never so sorely tried before or after that crisis. It was he himself who afterward confessed that he was about to sacrifice his career in philosophy and the church when the strength came to him to rebel. Bidding his temptress to leave his presence at once, the young Aquin seized a blazing brand from the hearth and turned upon the assailant of his moral integrity with fire in both hand

and eye. The rapid exit of the lady from the chamber possibly saved her from being burned to a cinder and spared the boy of strong purpose the solution of future problems of this kind.

It was this incident that determined the life of the philosopher. As the woman fled from him Thomas let the brand fall upon the floor. There its blackened edges left a mark in the form of a cross. The Scholastic fell upon his knees above this sign and with sobs and tears renewed the vows of chastity he had taken not long before with his friends, the Dominicans. The persistence of the boy won over the heart of his mother. From that time his way was easy. Indeed, he had little need for care in this respect, for the King, having learned the story of his persecutions, came to his aid with an order for his liberation. Freed from duress, Thomas, under the patronage of Frederick, was sent to Cologne, where his education was assigned to the most powerful and most famous of the Dominicans, Albert. He was an indefatigable worker and thinker, and was not to be drawn into the idle discussions of his fellow novices. The nobility of his birth counted for little in the monastery which, like modern universities, was a democracy in all save intellect.

D'Aquin was of huge stature and powerful physique. He might have felled any of his detractors with a blow of his fist as easily as he might have leveled any of them with the power of his intellect. He paid small heed to their talk, however, and was silent even to the exasperation of the masters themselves. These physical and mental characteristics won for him the name of "the Dumb Ox of Sicily." His fellows abandoned the use of it, however, when they came to measure their puny brains with the mighty cerebrum of the Aquin.

Thomas was not long in winning a conspicuous place among the metaphysicians and the theologians. He was ordained to the priesthood at the age of twenty-eight, and forthwith began to lecture. The sageness of the youthful ecclesiastic was made a matter of comment, and even papal attention was drawn to him before he had reached the age of forty. Urban called him to Rome and utilized him for lecturing in many parts of Italy. Urban's successor, the fourth of the Clements, designed to confer still higher honor on the pious Dominican and tendered him the bishopric of Naples, but Thomas had no political aspirations, preferring to devote his entire time to thought and teaching. For the same reason he rejected other offers of ecclesiastical honor and emolument, and remained the simple, untitled friar. He died at the early age of forty-eight, the most illustrious of contemporary Scholastics.

In many respects "the Angelic Doctor" was a remarkable man. The profundity of his intellect was marvelous even for a schoolman. His writings are voluminous. How he managed to produce such a quantity of literature during his short life is inconceivable. One edition of his works which was printed at Paris in 1636 numbers twenty-three volumes in huge folio, and a Venetian edition of a later date has twenty-eight volumes. Other editions were published at Rome (1570), Venice (1593), and at Antwerp (1612). Many complete sets of some of these editions have found their way into the most remote parts of the world, and are occasionally offered for sale by auction even in American cities in the present day. They are sometimes sold for the ridicuously low price of a dollar a volume, which is an infallible indication of how little men are at present interested in the thought of that master whose words were once hung upon by admiring thousands in mediæval Europe. A copy of the Antwerp edition should have special value owing to a complete biography of the author contained in it.

After his death the fame of Aquinas grew rapidly. Stories of miraculous occurrences that preceded and accompanied his passing were spread everywhere by admiring pupils. The body was claimed by several contending cities, but found its final resting place in the Dominican church at Toulouse.

With the single exception of Abelard, Aquinas is the most celebrated philosopher of the middle ages. He was the greatest exponent of the syllogistic system of reasoning, and carried it to the longest and finest extreme possible. Frequently his logic becomes so involved as to be hopelessly obscure. All the results of his philosophy are totally valueless inasmuch as he started from false premises. If there is any system that justly and truly can be called a logomachy that system belongs to Aquinas. He carried the Aristotelian method of reasoning to its utmost limit and, in the opinion of some, beyond it. He was mainly a Realist; that is to say, he held, for the most part, that mere abstractions were entities of themselves; but he was not a consistent Realist, for he admitted that some abstractions were only names after all.

In all that he thought Aquinas was more the theologian than the philosopher. In him philosophy and theology were thoroughly mixed, wedded, and united. His teachings were never once questioned by the orthodox. He stands supreme as the exemplar of all that the Scholastics and Scholasticism were able to do and to be. He was the most earnest, the most sincere, the most pious and the most reverent man of all the schools. He did not once, even for a moment, turn his face from the altar of his unbounded adoration. The promise and potentiality of his boyhood flowered into unassailable perfection in his manhood.

But the life of Aquinas was limited to the purest intellectuality. He is not the human, warm, impulsive, loving, picturesque creature that Abelard was. The story of his living did never—will never—make men and women weep, or cause human hearts to throb as does that of Abelard's. Aquinas is the Doctor—the learned one—with his folio black tomes and his logomachic system. Abelard is the man, heretical, adventurous, love lorn.

The great work of Aquinas, the title of which is almost as famous as himself, is *Summa Theologiae,* the *Sum* of *Theology.* He was the greatest of the Summists. In this work he treats of God, going into the most elaborate descriptions of how the Deity conducts the universe, what He is, what are His attributes and the manner and nature of the divine will. Angels and devils are here described with a precision that seems to argue special information or inspiration on the part of the author. Another section of the *Summa* treats of man and his relations to the Deity, involving the whole question of morality. The *Summa* also treats of the sacraments. The work is designed to be a complete treatise and presentation of theology as it was orthodox in the middle ages, and is valuable, historically, on that account if on no other.

From Thomas we may now turn to his great opponent, Duns Scotus. Duns, like Aquinas, was a Realist, but he was an absolute Realist. He differed from Aquinas in theology. England, Ireland, and Scotland all claim him as their own. He was doubtless born in one of these three countries, and about the year 1265. He is remembered for his theology rather than for his philosophy. In 1301 he went to Paris as the chairman of the school of theology in that city and there routed the Dominicans in the great tourney of mind between the two parties on the question of the immaculate conception of Mary. It is said that the great theologian from the islands refuted above two hundred objections of the Dominicans to the doctrine of the immaculate conception and reinforced his own position by innumerable arguments in support of it.

The reader must not mistake the nature of the Scotists' leading doctrine. The ignorance displayed on this point by men of otherwise remarkable learning is amazing, e. g., Professor Draper. Many Latin Christians are themselves likewise uninformed. The immaculate conception, now one of the dogmas of the Roman church, defined by the late Pius IX, involves the freedom of the soul of the Virgin from the taint of original sin. The dogma or Duns', famous contention, has nothing whatever to do with the birth of the Savior. Simply stated, the immaculate (spotless) conception means that Mary was born without the stain of sin upon her soul, the one exception among all the children of Adam and Eve. The conception and birth of Jesus is the *miraculous* conception, not the *immaculate.*

Such, then, was the service done theology by the celebrated Duns who, after nearly 600 years, was vindicated by a council of the church. In philosophy Duns resembled Al Gazali. He held that nothing was knowable, not even the existence of God, for which there were no proofs whatever, because we do not know God as He exists. He scouts the proof offered by Anselm of Canterbury, who used much the same logic as did Paley some centuries afterward; that is, the necessity of there being some cause for Existence—the so-called ontological proof. Duns dogmatized about the Deity with as much confidence as did Aquinas, to whom he was so unalterably opposed that the terms "Scotist" and "Thomist" were used commonly to mean opposite and antithetical. He taught that Aquinas was wrong in holding the will to be an instrument of the understanding, and there he was a predestinarian. He taught that the church was the *fons et principium* of all authority, and that were it not for the authority of the church the Scriptures need not be credible, or, rather, that the inerrancy of the Scriptures was established by the authority of the church. Duns died at the age of forty-three in Cologne, whither he had gone to engage in a public dispute. He was unquestionably the ablest and most talented dialectician of his time. The subtlety of his logic vanquished all who contested with him. It was this keenness of intellect and depth of resource that won him the title of the "Subtle Doctor" with which he was dubbed after his noted victory over the Dominicans.

An eminent pupil of Duns was William Occam, an English Franciscan friar who, however, opposed his master in that he rejected the prevailing doctrine of Realism and revived the tenet of Nominalism, which survived no little persecution. The dispute was swept away by the Reformation. Science was meanwhile preparing its lamp before which were to flee the terrors of Scholasticism and the vain glory of the schools.

GIORDANO BRUNO

So much has been written and so much has been said about Giordano Bruno that one who in these days takes up the subject cannot but feel that he has between his hands nothing but beaten straw. All men know that Bruno was burned at the stake on the 17th day of February, in the year 1600. All men know that on the spot where his tortured body curled and writhed under the flame there now stands a noble monument to his memory.

Bruno and his death have been made the text for endless sermons and the subject of interminable essays. They have been used as a flail by all classes of men, who have felt that their lives would be quite incomplete did they not cast at least one stone at the Church of Rome as it flourished in the Sixteenth Century; by scientific men, who seem to have conceived that in Bruno's death a personal attack was made upon themselves; by ecclesiastical opponents of Roman Catholicism no less than avowed atheists, and by those who rail at all religion wherever and whenever found. Of Bruno's death there are descriptions in which the floridity of the rhetoric is to be compared only with the horror of the things described. If any extraordinary and peculiarly hideous details were lacking in the thing itself, these have been fully supplied by the vivid imaginations that have painted the scene *ad nauseum.*

Happily this is now becoming an obsolete fashion. Rome could not restore Bruno's life, but Romans have made such amends as were possible. Thoughtful men do not now gloat over what seem to be the cruelties of their ancestors. They strive to study and to understand the causes that made these cruelties not only possible but necessary. All the suffering that men have endured has only served to make greater the total happiness of the present. Liberty springs from slavery. Pain is the mother of pleasure. Out of sorrow comes joy. The fact that Bruno and others like him died in the manner they did makes such deaths impossible now. What Bruno taught was honestly believed by his judges to be more menacing than we now consider the most fiery and revolutionary doctrines of Anarchy. Our laws do not demand the death of the anarchist who publicly utters his opinions. But the jail gapes for him. The speech of sedition is not free. And when the preacher of Anarchy puts theory into practice and encompasses murder he is killed.

Heresy in Bruno's time was a capital offense. When the Church and State are one, ecclesiastical and civil law are fused. There was but one law in Bruno's day, and he violated that law in the highest degree. The charge against him, uttered in all seriousness and sincerity, will have another sound if we roll back progress—progress in liberty and sympathy as well as in learning—and place ourselves in the Sixteenth Century and in Rome. "That man is not only a heretic but a heresiarch. He has written books in which he lauds the Queen of England and other heretical princes. He has written divers things touching religion that are contrary to the faith." It was then held by Bruno's accusers that heresy was more atrocious than murder. For, it was argued, if you kill a man's body you do him only a temporal and physical wrong; whereas, if you poison and destroy his soul you cause him an irreparable and eternal loss.

Observe that Bruno is not prosecuted or persecuted by his personal enemies or by those who were jealous of the distinction he won with his talents. The Church was smarting under heresies that had been successful; whose propagandists had escaped her hand and authority. That authority was already beginning to lose its reach and its force. The body of the Church was in the process of breaking up into the Sects. Printing had placed books in the hands of men, and no longer were people required to take their Scriptures at second hand. Science, the young giant, was everywhere disclosing new truths. Men had been shocked by the announcement of Copernicus that the sun did not wheel about the earth. Old, established views of things were dissolving, and in the optical confusion of the change strange and startling images were forming themselves. Men were suggesting doctrines and possibilities that seemed to threaten the very life of Religion itself. In the coil and clamor of all this it would be indeed odd did not the Church take prompt and vigorous action whenever it could. All the laws that were then in force concerning heresy have been long since dead. The heretic now suffers social and religious reprobation. Such is his inevitable punishment—a punishment he cannot escape so long as he utters his heresy. *Then* the punishment was death; and the heretics who escaped were as a thousand to one to the heretics who were killed. The foregoing is, in great part at least, the defense that has been made by numerous eminent apologists for the inquisitorial horrors of some centuries ago. Liberal judges will remember, too, that the fate of the heretic was much the same in the new Sects as in the old Church; a fact that proves beyond controversy that these horrors are to be attributed to the status of European civilization in general—a conclusion that is admitted now by everybody. What we of this age shudder at was a delight to the Romans. Savagery is savagery whatever may be its name.

Bruno is not introduced here as an example of a martyr to "Liberty of Thought"—for he was but one of a few bold men who preferred death to silence—but because he was a philosopher who occupied a peculiar and interesting position between the schoolmen and the beginning of modern philosophy properly so called. He has long had his place among the brave ones who had the courage to insist that philosophy, to be of service, must be divorced from theology. He was most unfortunate in being a monk. Laymen, before and after him, who were as free in publishing their opinions as he was, escaped. The manner of his death did not shock Europe as it shocks us, nor was the Rome of that memorable day in February the Rome of the present. The matter will present itself to us in a clearer light and with better feeling when we recollect that Christian Europe then, if not so civilized as is Europe now, was immeasurably in advance of the Europe of sixteen centuries before. The contrast pointed itself out in the ruined Coliseum, whose unspeakable atrocity and savagery were no longer more possible than would be a Bruno at the stake to-day.

The date of Bruno's birth is uncertain, but it is said to have been in the middle year of the Sixteenth Century. His birthplace was Nola, not far from the city of Naples. Little has been recorded of his early life, but he must of necessity have been an earnest and ardent youth, for he entered a convent of the Dominicans while yet in his boyhood. But the robe of the monk could never keep within bounds the passionate, almost fierce ardor of his mind. The Dominicans taught him the philosophy of the schools. He found all avenues of speculation—at least of orthodox speculation—closed to him. The Scholastics had thought all thoughts—except those that were proscribed. He found his philosophy ready made for him like his uniform. When he donned the one he donned the other. He could not be a Dominican and a free thinker, or at least a free speaker, at the same time. In the matter of thought he was presented with the problem of refining pure gold. He was deluged with Aristotelianism. When he asked for the meat and broth of philosophy he was given the black-letter volumes of Aquinas. Now, Bruno, like Plato, was a poet. He mixed himself with the stars. To him Nature was a radiant goddess, the beauty of whose moods made him thrall. Her smiles thrilled him with ineffable joy. Her frown caused him to pause in solemn meditation. He was a child of the sun, filled with the impulses that have given the world the poetry, the romance, and the art of Italy. In Bruno were all the force of the reformer, the afflatus of the poet, and the imagination of the mystic. In *his* primroses was reflected the infinite power of the universe. His thought, like all poetic thought, was synthetic. He was almost totally lacking in the faculty of analysis that seeks for causes with devouring insatiety. He was reverent toward Nature as most men are reverent to their gods. Nature spoke to him in terms of Deity, but he felt that he himself was part of Nature and part of God. God and Nature were the one and the all. And so his philosophy is Pantheism.

That such a mind could content itself with the dry forms of Scholastic Aristotelianism is impossible to think. He began by attacking some of the most sacred doctrines of the Church. He utterly rejected the dogma of transubstantiation. This dogma could not be cast aside without disaster to the dissenter. Bruno well knew the folly of contending against such a cardinal teaching of the Church and of hoping to be tolerated within the fold. In truth, the monastic life was distasteful to him in every one of its aspects. Had he been orthodox he would have made an unexampled preacher, but to preach by texts only, to say what had been said and repeated a thousand times before was not to his liking. The satisfactions he derived from breviary, from mass, from contemplation of the crucified figure, in a word, from any or from all of his functions as priest, were *nil.* On the contrary, the very learning he was acquiring in the convent fired him with a zeal and a fervor that were everything but holy from the sacerdotal point of view. He read the poetry of the Greeks and contrasted it with the dry formulæ repeated day after day by the monks. He bathed in the glorious infinity of Greek speculation and compared it with the empty syllogisms of the Scholastics. What was poison to the brothers of his congregation was sweet, warming wine for him. He recanted his vows, took off his robe, and "quit of the priests and books," he fled from his birthplace and wandered away, full of his new mission to sing his songs of Pantheism and to mingle with men who were part of the living, throbbing world.

In Bruno we find the supreme reaction of a mind that is crammed perforce with the ideas of others. Aristotelianism had been held up to him as the end of all philosophy. Scholasticism had been taught to him as the sum of all possible knowledge. He hated Aristotle and he hated the Scholastics. When he left the Dominicans he at once addressed himself to the destruction of the peripatetic philosophy and the propaganda of his own strange thoughts. Free now to think and say what he pleased, he went abroad and first proceeded to Geneva. True, the Dominicans were not there to repress him, but in Geneva Calvinism was young and vigorous, and Bruno easily perceived that his peculiar way of thinking was no more to the ways of the disciples of Chauvin than it was to the brothers he had left behind in Italy. Less so, if anything. The men who could find it necessary to burn a Servetus were not of a temper to allow their fires to go out while a Bruno remained within reach. At this time (about the year 1580) Bruno was a young man, fresh from his novitiate studies in the convent, and a master of the classics. He could no more restrain his tongue from speech than he could restrain his ears from hearing. It is probable that his career would have been cut short then had he not contrived to escape into France. Wandering by way of Toulouse, he drifted to Paris, the theater of European thought and revolution. In Paris his brilliant attainments at once brought him into notice, and he was offered a professorship in the Sorbonne if he would consent to the form of attending mass. Bruno flatly refused to do this, but in spite of the refusal he was given the privilege of a lecturer's liberty, and availed himself of it to the full. His successes in Paris were notable. The Parisians heard him with delight. What mattered if he were condemned by the Church and his utterances were anathema? There were bold souls in the French capital then as later. It was the garden spot of atheism and heresy. It detested the humdrum of the commonplace. It welcomed all lights only so that they were of a new color, or a new shade of color. It reveled in strife, intellectual as well as political. The cardinal and the skeptic were friends.

Bruno seized all his opportunities and for a time held the mob. But he soon longed for new conquests, and he crossed the straits into England. There his reception was all that he could desire. Bruno was a very learned man. He was familiar with much, if not all, of the science of his time. He was informed in all the wisdom of the ancients. He was a master of mathematics and astronomy. One of the first to accept the Copernican theory of the heliocentricity of the solar system, he did much toward spreading the new astronomy wherever he went. To a mind thus richly stored with such knowledge as he could obtain from the books, he added an imagination that knew no limit, and a fancy that was not altogether unlike that of the Aristotelians whom he so hated and whom he endeavored so incessantly and untiringly to destroy. He was intensely conscious of himself, and was quite vain of his acquirements. He was by no means the pure apostle of reform, the devoted man of science, or the profound philosopher. He was fond of praise, and was not averse to sacrificing his dignity to procure it. He was highly sensible to flattery and to notice from the great ones of the earth. He was a philosopher who found the beck of a Prince most gratifying.

In England Bruno breathed free air. There was no check to the expression of his opinions, no matter what was their nature. He was received at the court of Elizabeth with an attention that could not but have been most pleasing to his vanity and his sense of self-importance. There he met some of his own countrymen who had attained distinction. It was the glorious Elizabethan age of letters. On the one hand, there were no Dominicans to note wherein his philosophy or his religion was heterodox; on the other, no Presbyterians to hound him to death as a heretic or a blasphemer. He was perfectly free to say what he thought in public or in private. England was then in the beginning of its most celebrated age of literature. Soon she was to triumph with her science. Bacon was already on the horizon; Harvey was working on his masterful discovery of the circulation of the blood; Newton was soon to rise. Bruno met and conversed with men like Sir Philip Sydney, who was his friend and patron. If there was ever opportunity for philosopher to live in safety and serenity and to publish his thought, that opportunity was Bruno's. But the freedom thus offered him was abused by him. Lewes, in his admirable essay on Bruno, is authority for the statement that the Italian, swelling with the pride of his easy conquest in England, proposed that he be given a post in the University of Oxford that he might teach there. In his address asking for the privilege Bruno declares that "a doctor of a more perfect theology, and the professor of a purer wisdom" than was taught in the great school was to be found in him. The university granted him the request. In Oxford he lectured on cosmology and psychology, teaching the doctrines of the Alexandrians. After he had sated himself with the admiration of the English, or, perhaps, after he had worn out his welcome, he returned to Paris and began fiercely to attack the peripatetic philosophy. The freedom of speech he enjoyed in England made him forget that he was once more on the Continent, and he became so bold in his work that even Paris turned upon and rejected him. In Germany he found a more congenial home. At Marburg he made a stormy scene with the dean of the university, who had received him well, and then he turned to Wurtemberg, where he was permitted to lecture for a space of two years. His success at Wurtemberg was flattering, although here he was required to put a curb on his tongue and to have care how his teachings would be taken by the Lutherans. Much, however, would be required from an apostate monk to turn against him the reformed, the metaphysical, the scientific Germans. Bruno wearied of Wurtemberg, as he had wearied of London. The working out of cause and effect often seems a warrant for a belief that behind the much abused word Destiny lurks a little of real truth. But Bruno's return to Italy is easily understood without resort to any explanation other than is to be found in his character, his disposition, and his lack of any one settled purpose in life. Then, too, he was an Italian by birth, and a long term of immunity from persecution had made him bold. His masterful ability in oratory, his admirable control of his audiences, the favor of his personal appearance, and the possession of that power of attraction which has been called "magnetic" in public speakers, had stood him in stead so often that he presumed upon his gifts and returned to Italy.

Another explanation of this folly is found in the fact that Bruno was well aware of the liberality of the great Republic of Venice in matters theological. Venetians were busy in the marts. They were trading with foreign nations and were developing their system of finance that made the great island city the mistress of the commercial world. To the famous Bank of Venice, the first of its kind in Europe, there flowed the moneys of all the nations of the earth. The Venetians took all coins presented to them, weighed them, tested them, and discounted them. The commercial community is the community of the freest speech. Rome cared little for heretics. England was never under the thrall of the Church. These things were in the mind of Bruno when he went to Italy and opened a school at Padua. But he was not sufficiently mad to abuse and rend the peripatetics in public. He offered himself as a private tutor.

The inquisition had not remained in ignorance of the famous heretic. It had seen his books. It had carefully considered his fierce attacks upon the orthodox theology. It had not been unaware of Bruno's visit to England or of his eulogia of the great and hated Protestant Queen, the daughter of the monster, Henry VIII, who had robbed the convents of their great accumulations of treasure; taken from the monks their lands and their prestige; defied the Vatican and forever crushed the influence of the Church in his island dominions. Bruno, the apostate monk, the blasphemer, the teacher of heresies, the eulogist of the impious and heretical British Princess, was now in Italy. It had been a miracle did not the inquisition know of these things.

To the government of Venice, therefore, the inquisition went and laid before it a plain, simple statement of the case. Liberal as possibly could have been the Venetians, they could hardly have withstood the force of the charges. After all, Venice was more concerned with her bills of credit and her banknotes and foreign exchanges than she was with questions of orthodoxy or heterodoxy. The heresiarch was delivered over to the inquisitors and taken to Rome. He was confined for several years in various prisons, and if a reasonable and unprejudiced survey be taken of the proceedings that took place between his arrest in 1595 and his death in 1600, much of the asperity that his death has caused will seem unjust.

The inquisition did not put him to death at once. He was asked to express publicly his repentance for the sins he had done against religion; to retract his assertions about the faith; to recant his impious and heretical utterances. He flatly and defiantly refused. Be it observed that he was not left to rot in his dungeons. Time and again he was urged to satisfy the demands of the inquisition and gain his liberty. He still refused. In Bruno the Church had an arch blasphemer to deal with. He stood self condemned. He might have saved himself much suffering by a few words. He chose another course. Not long afterward, Galileo was summoned before the same tribunal and was requested to recant certain teachings of his concerning the solar system. In a felon's cell or a martyr's stake this man of science saw little value. His telescope was awaiting him elsewhere. The infinite sky was offering itself to his gaze with untold wonders and marvelous truths. Galileo could see no gear to be won by temporizing with the inquisitors. He was ready to admit that the earth was flat, square, oblong, cuneiform, or rhomboid, if he were only allowed to prosecute his studies in peace, with a view, privately entertained, of finding out what the truth really was. And so he "recanted," and forthwith made cryptograms in order to establish his priority of astronomical observations over those of other astronomers who were haply on the same scent. Not so Bruno. Theatrical and noisy to the last, he spat defiance in the face of his captors and bade them bring on their torments. The two Italians are co-famous. But herein lies the difference of performance: Bruno did well in dying to set example to the timid. His death is the assertion of much that is dear to the social man—the freedom of speech; Galileo unchained to the mind of man the secrets of unutterable space. Had Bruno recanted his grand lesson had been lost. Had Galileo died Science had suffered a most serious check. While we may admire the heroism of the Neopolitan in nobly sacrificing life to principle, we can appraise the wisdom of the Paduan in setting the proper store upon insignificant things in order to set the proper store on important things. The trial of Bruno means a groan; that of Galileo, a smile.

In his writings and in his life Bruno exhibits a many-sided character. He is the implacable enemy of Aristotelianism as it was used by the Scholastics. He is the uncompromising opponent of the Church, the spurner and scorner of her authority. He is the poet, the philosopher, the man of science. He wrote as he talked, voluminously and upon all kinds of topics. He produced satires, after the fashion of Juvenal, on the immorality of the age. He lampooned contemporaneous philosophy and letters and while, in these books of lighter vein, he satirizes and ridicules the pedantry of his victims, he is not averse to allowing it to be seen that he has not himself neglected the ancients. His works, like those of many philosophers and scientific men of former ages, have become curiously historical. But the philosophy of Bruno is of interest because he was the first to present the modern conception of Pantheism. He is constantly using terms that have their equivalent in the Alexandrian systems and in some of the cosmologico-theological philosophies of the early Greeks. The adumbration of his system is to be found in the ancients, but Bruno did not entirely divest himself of the theology of the Middle Ages, and although he was a Pantheist his speculations on the "Divine Will" smack of Christian theology.

Bruno's philosophy regards the universe as one consistent whole. Matter and spirit are unity, the one informing and animating the other, and both together are God. But in this unity we may distinguish separate parts. The visible universe, it is true, is part of the great animated and animating One, but it is not all that One. It is dependent on the spirit and caused by the spirit. God is the cause of all things, existing of himself, spreading throughout extension, embracing the planet and the blade of grass; in three words, the Being of Beings. Back of the visible is the invisible; behind and above the finite, the Infinite. The creation of matter *ex nihilo* is denied by Bruno. He approaches the Rosicrucian, or so-called Rosicrucian doctrine, which teaches that universal being is a macrocosm of which Man is the microcosm. Yet, macrocosm and microcosm are one. This is the belief that the universe itself is an organism, a living, throbbing, sentient existence, as man is living and sentient. Matter is not merely dead body that becomes animated by some cause external to itself and passes again into dead body, but it is a necessary condition of life which corresponds to the animating power and is used by that power, naturally and necessarily, for its action. Yet while he teaches this Bruno also holds that God is perfect and intelligent and homogeneous.

The Copernican theory he elaborates, or magnifies, to suit his purpose. Infinite space is filled with infinite matter and spirit, passing through a process of evolution to which there is neither beginning nor end. He rejected with much force the notion of Ptolemy and Aristotle that the earth was fixed, and he was almost fierce in his antagonism to the men around him who clung to that ancient and respectable doctrine. What had been the philosophy of Bruno had he been acquainted with the cosmology of the pre-Buddhists and the Brahmins it is hard to say. But bold as he was with the use of terms that at best can mean little more than a confused mixture of ideas that are negative, and which by a trick of the imagination are made to appear real, his Pantheism is crude and weak compared with the cosmology of the Brahmins, with the noble flux of Manutara and Pralaya, or with the transcendental and unthinkable Niruana of Gautama.

The Italian's psychology he tries to conform to his metaphysics and his principal ontological speculation. As, with him, all things are One, there is, in reality, an internal identity between things perceived and the perceiving intelligence. Herein is foreshadowed the doctrine of the Germans. There is the same deep-seated identity or, at least, affinity, between God and the mind of man. But the mind of man is not perfect as God is perfect. We can never attain to that complete knowledge which is God's alone. Ideas are the dim reflex of the infinitely intelligent divine mind. They are to the ideas of the divine mind what shadows are to light. The shadow of a man, no doubt, may be said to resemble a man, and in the same way our ideas are the shadows of the true, real ideas above us. There is first the great central source of light and life and being which shines through all things, vivifying and illuminating them. But as this radiation spreads farther and farther from its fountain and cause, it becomes weaker. Man partakes of this radiance, but darkly. Hence Bruno calls ideas not ideas but shadows of ideas—*umbrae idearum.* This is pure mysticism. It is Rosicrucianism so far as the tenets of the Rosa Crux societies have been thus far published to the world. The late Mr. Hargrave Jennings has been at some trouble to expound the teachings of this sect in his widely read book, *The Rosicrucians,* and they may be said to not remotely partake of the character of Bruno's ontology and psychology.*

---

*The writer of this book had the pleasure of several lengthy conversations with the late Mr. Hargrave Jennings in London. This was a few years before the Rosicrucian's death, and although he was bowed with age his mind was active and young. He not only denied, any influence of Bruno upon his book, but intimated that Rosicru-

In his moral philosophy Bruno was confronted with a problem which no refuge in words could satisfactorily solve. As God is a perfect Form, a rational Cause, and an infinitely good *Will,* how come evil, pain, sin, and death into the world? The question is not new now, nor was it new to Bruno or to the theologians and the philosophers whose answers to it he thrust aside as worthless. Here was placed before him the great *assumed* major premise, postulated by himself as well as by others. It was, and is, at best a difficulty of supreme importance. But the Scholastics had an infinite advantage over their opponent: *they* did not teach Pantheism. Neither did they deny the world's creation out of nothing. They did not sweep away the Biblical account of cosmogenesis, the doctrine of our first parents, the fall of man, original sin, and the vicarious redemption. They precisely taught all of these things. God made man and endowed him with a perfectly free will, with a clear memory, and with a rational understanding. Man had chosen evil instead of good, and with that choice came all his afflictions of flesh and spirit. But Bruno, while he believed that man's soul was free and conscious, rejected the Scholastic explanation of death and so-called sin. He could not contend that man, being so, could deliberately introduce into life the horror and pain that were everywhere seen among men

cianism, as expounded by him, was far older than the Sixteenth Century or even than the Middle Ages. He was generous in the delineation of some very obscure passages in his highly mystic work (such as, "We are spotted on fire"), but the exposition was no clearer than the original. The entire Pantheistic and Rosicrucian system of thought may be pursued with as much profit as is ordinarily derived from the quest that is offered by the mathematical puzzle books of the brilliant Professor Dodgson. If the reader have sufficient curiosity to learn more of the bizarre literature on which Lord Lytton founded his romance *Zanoni,* he is referred to Hargrave Jenning's book above mentioned. That literature is all of one genus.

and beasts. How, therefore, pass through this occlusion? Bruno disposed of the matter after the fashion of all mystics. Do death, deformity, pain, and wrong conflict with his system? If so, eliminate them. They do not exist. They are illusions. These matters (which are, in truth, the most vividly acute of all sensations) are not ideas at all, founded, like ideas of pleasure and aspiration, on the rock of consciousness, but mere nothings that have no substantial reality whatever! The Aristotelians, with all their fallacies, were guilty of no such outright evasion as this.

Bruno was no more unfortunate in his philosophy than have been most men who originate or compound a system of ontology, cosmology, or morality. Such have been seldom disturbed by the appearance of plain facts that obtrude themselves uninvited upon the attention. The desire to systematize has been coeval with speculation, and the failure of all systems—save that suggested by the accumulation of scientific knowledge—has been due to the neglect of their founders to proceed with great caution from step to step, sure of their footing upon every advance and stopping short when that footing was not to be found. Inasmuch as Science has only in the present day afforded the materials to build so firm a causeway as this, it was impossible for any philosopher, even an Aristotle, to leave behind him a scheme of thought, if only in outline, which could hope to survive the progress of observation, experience, and education. Bruno attempted to fly with the wings of Icarus. That he fell was as certain as the failure of all who attempt to encompass the impossible.

BACON

To no figure in the pantheon of philosophy can so high a place be given as to that of Francis Bacon. Great wits and small alike have shot at his tremendous stature little arrows tipped with the poison of ignorance or malice. His personal character and his private life have been held up to the scorn of mankind. There is scarce an evil thing that can be said of a man that has not been said of him. Perhaps the most mischievous work that has been done against Bacon is that encompassed by Alexander Pope, the poet, who called him "the wisest, brightest, *meanest* of mankind." Pope boasted of the misfortune of the victims who "at some unlucky time" "slid" into his verse. Popular judgment, since Pope wrote that famous, or infamous, line, has been based upon that one superlative which ascribes to Bacon the place he is generally assigned in popular estimation. Almost as mischievous as Pope's verse is Lord Macaulay's essay which for a long time was the material out of which the ordinary reader built up his opinion of England's greatest man.

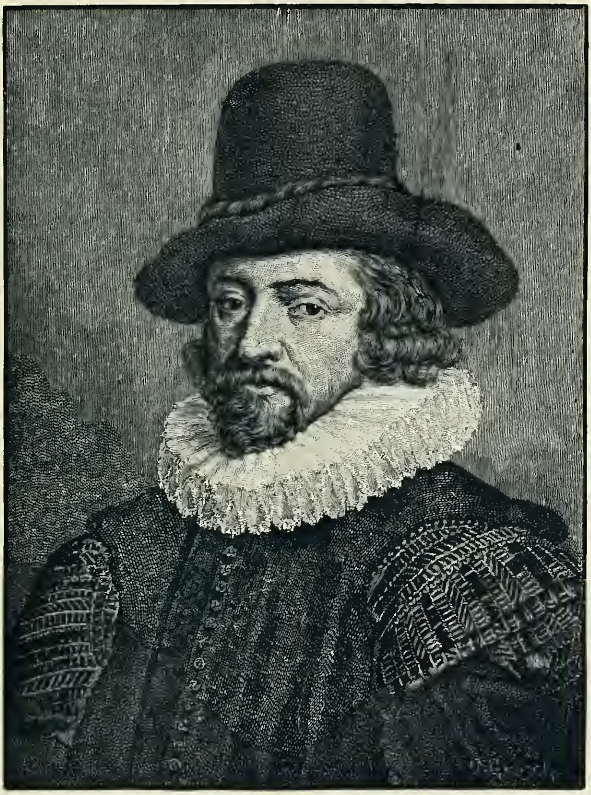
To three men is mainly due the rehabilitation of the philosopher's name. These are James Spedding, Basil Montagu, and Sir William Hepworth Dixon. Spedding and Montagu have published Bacon's works and life, and Dixon an admirable biography. To these books that reader who is eager for authentic information on this subject is referred. As it is our purpose to speak of Lord Bacon in his capacity as a philosopher rather than in that of a statesman or of a jurist, much discussion of these latter aspects of his life must be omitted. One other circumstance has contributed in large measure toward bringing about, in an indirect way, a reconsideration of Bacon's life in the minds of many who had been interested in the sage of St. Albans in the most casual way only. That is the controversy—regarded by most persons with contempt—in which is involved the authorship of the plays of Shakespeare. The quantity of the literature on this subject is immense. The suggestion that it was Bacon, not Shakespeare, who was the author of the plays, was first made by Delia Bacon, a cultured American lady, whose high mental attainments won for her the friendship of Nathaniel Hawthorne. For almost half a century the "Baconians" and the "Shakespeareans" have waged relentless war with each other and to small purpose save for the stimulation of popular interest in the life of the philosopher. For that reason, if for no other, the work of the unfortunate originator of the bizarre controversy has not been in vain.

Until a comparatively recent time the defamers of Bacon contented themselves with abuse of his personal character. The charges of his alleged treachery to and betrayal of Robert Devereaux, Earl of Essex, and of his bribe-taking as a judge, are worn to shreds with use. But there have been few who sought to strip him of his merits as a philosopher and of having been the founder of the Inductive Method and the "father of experimental science." That a scientific man may not always be the most competent judge in all matters that concern his work is made manifest by the opinion of John William Draper as to Lord Bacon's merits. Draper may be fairly taken as a spokesman for science, though it by no means follows that he is not alone among men of science in his estimation of Bacon. But as he is the most conspicuous of scientific men who have gone out of their way to disparage Bacon, his opinion, which is adopted by Edward Clodd, a more recent writer, may be quoted: "Few scientific pretenders," says Professor Draper in the work already cited, "have made more mistakes than Lord Bacon. He rejected the Copernican system and spoke insolently of its great author; he undertook to criticise adversely Gilbert's treatise 'De Magnete'; he was occupied in the condemnation of any investigation of final causes while Harvey was deducing the circulation of the blood from Aquapendente's discovery of the valves in the veins; he was doubtful whether instruments were of any advantage, while Galileo was investigating the heavens with the telescope. Ignorant himself of every branch of mathematics he presumed that they were useless in science but a few years before Newton achieved by their aid his immortal discoveries. It is time that the sacred name of philosophy be severed from its long connection with that of one who was a pretender in science, a time-serving politician, a corrupt judge, a treacherous friend, a bad man."

Of the last sentence in this arraignment little need be said. The light of careful and dispassionate investigation—such investigation as Bacon himself commends—has been turned on the questions of Bacon's statesmanship, judicial probity, and relations to the trial and condemnation of Essex. It is hardly necessary to point out the irrelevancy of the personal character of a man to his merits as either investigator or philosopher. Bacon's name has not yet been dissociated from the name of philosophy, however sacred the latter might have been in Professor Draper's opinion. It is no derogation of Bacon's originality to say that he did not adopt the Copernican system, that he doubted the utility of instruments (where, Professor Draper does not say), or that he criticized adversely Gilbert's theories of magnetism. In so far as the brilliant American physiologist and chemist philosophizes at all, he uses precisely the Baconian method. But it is amazing to find him contrasting Bacon's insistence on the utility of searching for final causes with Harvey's discovery or any other scientific discovery. The two matters are different in kind and not to be compared. One might as well condemn the methodology of any science because some specialist is making particular discoveries in that science and thus furnishing material for the methodologists. Then, too, Bacon was not, nor did he claim to be, an investigator. He was a methodologist who sought to show men the supreme need and necessity of experiment and *the reason why* experiment was thus necessary. Again, it must be remembered that he dealt with philosophy and science generally, and not with any particular branch of science. It is quite true that induction was used before his time; likewise that experimentation and observation were as old as Aristotle. Indeed, every man from childhood uses induction daily in every concern of life. And some have brought forward this fact to prove that Bacon did not originate the Inductive Method! But Bacon differs from all other men in this, that he was the first to formulate the method, to explain why that method is the only safe method, and to insist on the careful verification by observation and experiment of every fact that is used in those generalizations that are called laws of nature. He especially calls attention to the mistake that had been made by others of too eagerly flying to generalizations before testing the validity of them by deduction. It is absurd to indict Bacon for condemning investigation of final causes as futile when a philosophy like Bruno's was current, when Scholasticism was the fashion, and when the Church was burning heretics. Galileo and Harvey were not types of the time. They were rare exceptions.

The method founded by Bacon is the method used by Darwin and Spencer. Simply stated it is this: To establish firmly the truth of any "law of nature" or of any theory explanatory of the things and the processes we see about us, it is necessary first to be certain of the facts used in any such generalization. This certainty is only to be arrived at by careful and exhaustive experiment and observation. From the whole body of facts thus accumulated may be synthesized a general law or a general truth, and the whole body of such truths properly understood in their interrelations, is the material of a true philosophy. This general statement is a truism now. But it was Bacon who discovered it. In *Novum Organum* he says: "The indications for the interpretation of Nature include two general parts: The first relates to the raising of axioms (general laws or truths) from experience; and the second to the deducing or deriving of new experiments from axioms." It will be observed that he provides for the derivation of *new* experiments (or deductions) from the general laws or truths established by *induction*. This is the very heart of the Method.

If we pause to observe its importance we shall see how it cleaves through the entire mass of human thought, separating all that is vague, speculative, uncertain and unknowable from all that is definite, positive, indubitable, and cognizable. It puts to one side all the unsystematic guesswork of philosophers from Thales to Bruno as worthless, and sets up in its stead the practical and useful method which was already, it is true, beginning to be used by the pioneers of physical science. More: It insists that physics is the basic and all inclusive science, and this was



FRANCIS BACON

asserted in plain words and with much emphasis by Bacon himself, who reduced all sciences to physics, that is, in the broad sense of that word—physical science. It evaporates the value of the Aristotelian syllogism and the Platonic Existences alike. It irrevocably places theology to one side as something which has nothing whatever to do with science or philosophy, and for the first time intelligently lays a foundation for science and philosophy to build upon. It delimitates the boundaries of philosophy in such a way as to leave it no material of construction save that supplied to it by facts which are open to all men, intelligible to all men, and demonstrable by all men. It brings philosophy from the insane sublimities of the Aryans, from the childish guesses of the Greeks, from the mystic absurdities of the neo-Platonists, and from the attempts of the Scholastics at dividing the indivisable, down to the simple and certain basis which can be understood clearly by the most unsophisticated of rustics. That is the Baconian Method.

To condemn Bacon because he did not discover new planets, or invent new scientific instruments, or lay down some grand law of nature, is the equivalent of condemning Euclid because he did not discover that mathematics could be applied to the construction of tubular steel bridges or to the determination of a planet's mass. To say that the Baconian method was used before Bacon's time is to assert what is not true or to avow ignorance of what the Baconian method really is. On the contrary, it is absurd to hold (as Lord Macaulay puts it into the mouths of Bacon enthusiasts) that it was the Baconian method which gave the world the steam engine and all those discoveries and inventions that have supplied us with the comforts of civilization. There is no doubt that had not Bacon defined the method some other man would have done so, but this is only primarily asserting the genius of the man who really did define it. Lewes says: "Was not Bacon's method latent in the scientific spirit of the age? Yes; just as much as the invention of the steam engine was latent in the knowledge and tendencies of the age of Watt. What does invention mean more than the finding of what others are still seeking? Were it not hidden somewhere no one could find it. Let no one, therefore, endeavor to rob a great man of his fame by declaring that the thing found by him was lying ready to be found and would have been found, sooner or later, by some one. Yes, by some one who had eyes to see what his fellowmen could not see; by some other *great* man. How was it that Bacon's immediate predecessors and contemporaries did not detect this latent method? It was lying there as open for inspection to them as to him. Why did he alone find it? Because he alone was competent to find it."

Bacon's age was an age when the universe was opening itself to the mind of man. Some of the sciences were already born and were making infantile efforts with their weak hands to grasp truth. Many others were on the point of parturition, and the near future was big with potency. Immortal names were being written across the high walls of fame. The germs of modern chemistry, of the new astronomy, of physics (in the restricted sense), of geology, of optics, of biology and physiology, of anatomy and botany, of neurology and psychology, of zoölogy and pathology, and of many other sciences which have since grown into the giant structures we now see, were stirring and about to break forth into the bud. These were among the great "births of time." We borrow the metaphor from Bacon himself, who himself declared that his own gigantic work was the "greatest birth" of them all.

A study of Bacon's works will be disappointing to that reader who will expect to find in them an unfolding and exemplification of his Method such as one would naturally look for in a work of a similar kind in the present age. For the sake of illustration we may compare Bacon with Charles Darwin. Had a Darwin lived in Bacon's age, or, rather (for that is an impossible conception) had some one in that age been struck with the idea of Natural Selection, he would have presented his scheme of thought by the same errorful and imperfect style of illustration that we find in the *Novum Organum* and the other works in which is preserved the Baconian renovation of thought and science. These works were written in Latin, for Bacon shared in the prevalent delusion that in Latin alone could exact thought be expressed, or that in either of the classic tongues alone could be found a vehicle that would preserve his thought to learned posterity. The masses were steeped in barbarous ignorance. English was not a linguistic implement ready for the hand of science or philosophy. All the learned works were written in Latin then and even later, as were Newton's *Principia,* the works of Galileo, of Kepler and of others. Bacon in the *Novum Organum* used far-fetched figures of speech, and the illustrations of the Method are as far-fetched as the figures and at times tiresome, and even ridiculous. His lack of scientific training, in details, is apparent and obvious. He suggests numbers of experiments, stated in quaint language, that never could have been of great use. He calls the false notions that men entertained of the realities of things *Idola* or Idols, such as the "Idols of the Theater," the "Idols of the Cave," etc. After accounting for and clearing the ground of these false conceptions he proceeds to show the true, the valid, way of investigation or interpretation of nature. One has to patiently translate his figures of speech into their practical values and follow him through his labyrinth of illustrations and experiments, casting aside what is not to the purpose and applying what is useful. The stream of his thought flows through many turns and by devious ways, but its current is strong and it reaches the level of equilibrium safely and surely, if tardily.

With Darwin we find the perfection of the application of the Baconian Method. The celebrated naturalist had a mass of facts to begin with. His purpose was to establish by the use of the Baconian method *one* grand generalization. His illustrations and experiments led to but one special end. Considering all facts only in their bearing on the matter before him, his experiments could be conducted without loss of time and with certainty as to their value or their want of it as soon as he saw the result. The first moment the thought of Natural Selection came into his mind Darwin understood its importance and realized its scope. He could have written the formula of the law then as well as he did a score of years later. But he followed the advice of Bacon. He did not fly at his generalization or his law before he had verified it inductively and then tested it deductively. But how different the *Origin of Species* from the *Novum Organum!* In the former not one word is wasted. Every fact has a bearing on the issue. The subject is attacked in a plain, direct way that appeals to the meanest intellect and is grasped by the most non-scientific. But in Darwin's day the Baconian Method had become facile and perfect in its working through long use. Darwin, careful as he was, was no more insistent on the necessity of experiment and verification than was Bacon. The founder of the Inductive Philosophy ever suggests experiments, always insists on observation and verification, and, as if he were destined to leave an immortal example to all investigators, he brought about his own death while trying to find out the effects of low temperature as a preservative of dead animal tissue.

Although Bacon's works, at least those works in which he develops his method, are not clear as we could, in this age of exactness and precision, desire them to be, they are nevertheless of great interest from an archaic point of view. It is often not only pleasing but profitable to take the words of great masters at first rather than at second hand. We may read La Place, Adam Smith, Recardo, Plato, and Aristotle in their own books and in this way arrive at an acquaintance with their thought which is closer and warmer than any to be had by a consideration of these works as digested through the minds of others. The time spent in the study of Bacon's philosophical works will not be entirely wasted. And while this is true, he who has not read and reread the lighter works of the man will distinctly lack much that can be supplied by no other process.

The biography of Francis Bacon is of thrilling interest concerning, as it does, the most important events in two historic reigns, those of Elizabeth and the first James, and involving, as it does, some of the most illustrious men in English history. But little attention can be given it here in detail. He was born on the 22d of February, 1561, at York House, in the Strand. He died at the residence of Lord Arundel on the 9th of April, 1627, at the age of sixty-six years. York House, of which nothing now remains but a gate, was a conspicuous residence on the banks of the Thames in what is now the heart of London, within a stone's throw from Charing Cross. Next to the house in which Bacon was born stood the royal palace, which was separated from it by green fields. One front was upon the street, with high gates and court yard. The principal façade looked upon the river. There was a garden of great extent and fine cultivation which sloped gently to the water. Stairs were provided for the landing of pleasure boats. The view from the spot was noble, looking to the south and the east as far as the famed London Bridge. The Thames then presented a far different scene from the Thames now. It ran sparkling through borders of green and fair gardens on either side. To quote Hepworth Dixon, "all the gay life of the river swept past the lawn; the shad fishers spreading their nets, the watermen paddling gallants to Bankside, the city barges rowing past in procession, and the Queen herself, with her train of lords and ladies, shooting by in her journeys from the Tower to Whitehall stairs. From the lattice out of which he gazed the child could see, over the palace roof, the pinnacles and crosses of the abbey."

Francis was the son of Sir Nicholas and Lady Anne Bacon. His father was the keeper of the Great Seal, and Queen Elizabeth, with whom Francis was a favorite, called the child "my little Lord Keeper." Bacon was sent to Cambridge as a mere lad and left the university at the age of sixteen, refusing to work for a degree. Indeed, it would seem that the notion of a degree was rather displeasing to him than otherwise, for although he was but a mere boy he was old enough to express great contempt for the philosophy that was taught in the school, a contempt which found its undying expression in the foundation of his method with its overthrow of the whole scheme of the Aristotelian logic. After leaving college, Bacon went abroad and spent some years in France. The death of his father recalled him to London. He studied law, took up the practice of the profession, suffered the hardships of poverty, and was in nowise aided by his late father's friends. In 1590, at the age of twenty-nine, he entered Parliament and at once drew to himself the attention of the political world. As an orator he was unapproached. Ben Jonson wrote of him: "There happened in my time one noble speaker who was full of gravity in his speaking. His language, where he could spare or pass by a jest, was nobly censorious. No man ever spoke more neatly, more precisely, more weightily, or suffered less emptiness, less idleness in what he uttered. No member of his speech but consisted of his own graces. His hearers could not cough or look aside from him without loss. He commanded when he spoke and had his judges angry or pleased at his devotion."

A man such as this was destined to rise. The way to the heights before him was steep and difficult. He had no influence save that of his own individual strength. He was poor. Those who should have been his friends by ties of blood rather placed obstacles in his path than made it smooth. His uncle, Robert Cecil, the first Lord Salisbury, opposed him. The sleepless enmity of the powerful Coke pursued him and confronted him at every turn. But Bacon was knighted and became Sir Francis Bacon. From Solicitor-General he rose to be Attorney-General and then to the office of Keeper of the Great Seal. He was raised to the peerage, was created Baron Verulam, of Verulam. He became Lord Chancellor. But greater rewards were in store for him. With all the clamor of public life, in the midst of political intrigue, and surrounded by jealous and powerful enemies, one would conceive he had but little time for study. But Bacon was above all a philosopher. He longed to be at that work which he rightly believed to be the most important work of his life. He retired to his study to labor upon the Great Task—the renovation of the sciences, the reformation of philosophy, "the greatest Birth of Time." He completed and published the *Novum Organum*. James I has been subjected to the severest criticism of almost all the Kings of England. But he is not quite undeserving. His Bible is the canon used by all Protestant English-speaking people even now. He seems to have appreciated Bacon's great work, for he praised it, and as a mark of his esteem he created the author Viscount of St. Albans. Bacon had meantime married Alice Barnham, the daughter of a wealthy alderman and through her he acquired a small estate. Three days after he was created Lord St. Albans the Parliament of 1621 assembled. Bacon was charged with corruption in office, and what followed has furnished the materials out of which have grown the slanders that have endured down to the present day.

In disposing of this part of his career we can do no better than to quote the remarkable words in which Sir William Hepworth Dixon has placed before the world the most concise summary that has yet appeared in print of the charges preferred against Bacon and the answers to them all. In "The Story" he says: "In the world of familiar illustration there are two Francis Bacons: one of legend, one of story; a Figure which Edward Coke opposed, which Simon d'Ewes and Anthony Weldon traduced; and a Man whom Raleigh admired, whom Ellesmere assisted, whom Falkland and Herbert loved. The first is a fool, a pretender, an ingrate; the other a wit, a reformer, a mediator, a gentleman, the soul of courtesy and grace, the most forgiving of adversaries, the most steadfast of friends. The spurious Bacon was branded by Alexander Pope; the true Bacon described by Ben Jonson and John Aubrey. Coming four generations after Bacon, Pope could know nothing of the facts; while Jonson, a higher judge, had lived at the same time, had been a witness of his career, and enjoyed the affection and confidence of those who knew him best. Aubrey, too, though he never saw Bacon in the flesh, had peculiar means of arriving at the truth; for he associated familiarly with those who had been Bacon's secretaries and friends, and his anecdotes and impressions were derived from the lips of Sir John Danvers and Thomas Hobbes.

"These legends come down to us in broken but connected lines: the false Bacon through Welden, Goodman, d'Ewes, and Pope; the true Bacon through Raleigh, Jonson, Tennison, Aubrey, Hobbes, and Carte.

"A Fictitious Biography has been invented to sustain a Fictitious Character. The caricaturists paint Bacon in the House of Commons, as playing now the patriot, anon the courtier; one day speaking on behalf of the widest popular liberties, another day battling to increase the supplies and strengthen the prerogative, just as suit his interest for the hour. The (true) story will show that his policy in the House of Commons never varies from the day on which he entered it as burgess from Melcombe, at the age of twenty-four, to the day on which he quitted it, to accept the Seals. His policy, if new, was clear and consistent. Going into the House of Commons in a time of internal change and external danger, the feudal system dying out, the constitutional system still unborn, the Puritans crying out for change, the Spaniards threatening a descent, Bacon found that House divided, as the whole Nation was divided, into two camps: the Court unduly jealous of the people, the Puritans unduly jealous of the Crown. Neither a courtier nor a Puritan, but a man of brilliant insight who had given his mind to politics, he yearned to see a strong government established in the midst of a free people. His vote was always with the reformers, except on those rare occasions when the reformers were clearly in the wrong; but even when he voted against them, the Puritans, who knew his honor and respected his independence, never drew from his side. To the last hour of his Parliamentary life he was their orator and their favorite.

"The Fictitious Biography paints him as bound by the sacred ties of gratitude and affection to the Earl of Essex, who, after striving in the most disinterested spirit to procure for him a great office and a wealthy wife, and failing in these efforts, had generously bestowed upon him Twickenham Park; as helping and advising that Earl so long as he could do it safely and with profit, but as going over to his enemies when the hour of danger came; and when the rash Earl's enterprise gave those enemies a legal advantage over him, as straining his utmost skill as an advocate, his preëminent vigor as a writer, to take away the life and to damn the memory of a noble and confiding friend.

"A plain story of the times will show that the connection of Bacon with Essex was one of politics and business; that this connection was in the highest degree injurious to Bacon and to Bacon's family; that Essex caused him to lose for fourteen years the post of Solicitor; that Twickenham Park had never been the property of Essex, and was not given by him to Bacon; that the connection between them ceased by the Earl's own acts, Essex abandoning the National party, to which he and Bacon belonged, and opposing himself in the House of Commons to Bacon's measures of reform; that the 'rash enterprise' for which Essex died on the block was treason of so black a shade—so odious in the conception, so revolting in the details—as to arm against him every honest man; that Essex not only sought to subvert the Government, but to subvert it by means of an Irish army for the benefit of Rome, not only to remove his rivals from power, but to assassinate Raleigh and Cecil, and, on resistance, the Queen herself; that, while Essex was yet free from overt and unpardonable crimes, Bacon went beyond the extremest bounds of chivalry to save him; that in acting against Essex, when Essex had stained his hands with blood and his soul with treason, he did no more than he was bound to do as a public man; that, though he could not save the guilty chief, he strove, and not in vain, to rescue from the gallows his misled accomplices; finally, that to the generous suppressions of the State paper which he drew up under her Majesty's command, was due the fact that Essex's name could be pronounced without a curse, and his son could one day be restored in blood.

"The Fictitious Biography describes Bacon as having arrested, prosecuted, and condemned a very eminent lawyer, Oliver St. John, in after life the famous Lord Chief Justice of the Commonwealth, for pronouncing a legal opinion on the legal question of a benevolence. The story will show that the person arrested was not the Lord Chief Justice St. John, was not a lawyer at all; that the man was not prosecuted for expressing a legal opinion, but for an overt political crime; that he was condemned and sentenced not by Francis Bacon, but by Edward Coke.

"The same Fictitious Biography describes him as having caused the arrest of an aged Puritan minister, for writing a sermon which he had never preached and never meant to preach, reflecting on the tyranny of Government; as urging the case forward with unseemly and malignant haste; as, out of mean subservience to his Majesty, stretching this old man on the rack, and as wishing to hang him for an offense which he knew was not high treason.

"The new light will exhibit Bacon's action in this matter as natural and commendable. It will be seen that Peacham was not a Puritan, or a man with whom any Puritan divine or writer has ever sympathized; that he was a scandal to his neighbors and to his calling; that he was not arrested by the Government for a political offense, but by Archbishop Abbott for a personal and ecclesiastical outrage; that a commission of prelates after a patient hearing of his excuses, cast him out from the Church; that the ecclesiastical commissioners found in his desk the papers which became the subject of a political prosecution; that these political papers were not a sermon but a book—a book ready for the press; that Peacham, to excuse himself, accused an innocent family—to which Bacon was bound by the most sacred ties—of complicity in his crime; that the members of this innocent family were arrested by Winwood on suspicion; that the only way in which they could be saved from shame, and perhaps from ruin, was by compelling the false accuser to withdraw his charge; that the examination to that end by torture was the act of the Privy Council, of which Bacon was not even a member; that his duty as Attorney-General bound him to witness the confession, but that Winwood, the Secretary of State, and chief of the commission, was alone responsible for it; that, while Bacon showed his resolution to make Peacham tell the truth, he allowed the public to know that he should counsel the Crown not to deal harshly with him; that the leniency thus announced while the offender was in the Tower was extended to him during his trial and after his trial; for as soon as the false accuser confessed his lies, and the innocent men were safe, he was sent into his own county to be tried at the ordinary assizes, and when he was convicted of high treason by a jury of his neighbors the Government spared his life.

"The Fictitious Biography makes much of the charge of judicial corruption, of the submission, of the sentence of the House of Lords. In dealing with this passage of his life, it strays farthest perhaps from fact, from logic, and from good sense. It asserts that Bacon was impeached by the House of Commons for corruption in taking bribes to pervert justice on the bench; that he was tried for this offense by his peers; that he fully and without reserve confessed himself guilty of it; that he was judicially condemned for it; and that no man in the generation of these events was either weak or brazen enough to contest the truth of this charge, the sincerity of this confession, or the justice of this condemnation. Now, what are the facts?

"A glance at the journals of Parliament will show that he was not impeached by the House of Commons, not tried by the House of Lords. The proceeding was an inquiry, not a trial; a political, not a judicial act. A personal enemy and a discharged servant brought forward this charge of corruption. Some of the ablest men, some of the best reformers of that time—Sackville, Wentworth, Meautys, Finch, and May—resisted the introduction of such a charge; the majority, though bent on winning reform, and told they could only get at Chancery through the Chancellor, refused, on a motion to that effect, to send up the accusation as an impeachment or in any other form than as a simple relation "without prejudice or opinion." In the Lords there was an inquiry, not a trial. No court was constituted, nor was any legal indictment drawn. The difference between such an inquiry as took place and a proper trial under the King's commission is immense. The inquiry was not public, the witnesses were not sworn to speak the truth under the usual penalties of perjury, their statements were all delivered *ex parte*, there was no cross-examination, no sifting of evidence, no inquiry made into the characters of the deposing witnesses. The accused Chancellor was not present, either in person or by his counsel. Not a single fact in the accusation against him was proved. There was consequently no trial in either a legal or in a moral sense.

"It is not true that Bacon confessed himself guilty of taking bribes to pervert his judicial opinions. His act of submission consists of two parts: a general plea and a statement of the particulars. This statement of particulars limits and explains the sense in which the general plea of guilty is to be received; and it cannot, without garbling and injustice, be divorced from that general plea. Much of the error as to this part of Bacon's life has sprung from separating two clauses of an instrument, which are grammatically and logically necessary to each other. If the general plea runs "guilty of corruption," the statement of particulars explains the nature and degree of the corruption to which this confession is made. This statement nowhere admits that Bacon had taken bribes to pervert justice. In two or three cases it allows that suitors in his court had been suffered by his servants to pay their fees, the legality of which was incontestable, at irregular times. So far he could plead guilty; not to an actual and personal, but to an official and hypothetical offense; one which Finch told the House of Commons that no judge on the bench could help. That Bacon pleaded guilty in this sense, and in no other, is apparent in the limitations of his public text and in all his private declarations. From a sick bed, in what appeared to his physicians as the extremity of his life, he wrote: 'I take myself to be as innocent as any born on St. Innocent's day in my heart.' Again: 'There be three degrees or cases, as I conceive, of gifts or rewards given to a judge. The first is, of bargain, contract, or promise of reward, *pendente lite;* and of this my heart tells me that I am innocent; that I had no reward in my eye or thought when I pronounced any sentence or order.' And to Buckingham he wrote: 'I know I have clean hands and a clean heart.' Thus, in words which had the sanctity and force of a dying confession, he put an explanation by the side of his admission. The assertion of purity was made at the same period and to the same persons as the confession of corruption. It is certain, therefore, that the two statements were reconcilable in Bacon's mind; that the fault which he admitted was not incompatible with the virtue which he claimed; that the corruption to which he pleaded was a necessary adjunct of his office. In a word, he confessed no more than that he was guilty of being Lord Chancellor.

"That the vote of the Peers was a political, not a judicial act, is obvious from the forms observed: Sir James Ley occupying the chair in place of the Lord High Steward of England; the House sitting in its own chamber instead of in Westminster Hall. An attempt to procure from the Peers a sentence which implied personal guilt was made and was defeated; for even those who consented to his political ruin refused to assist in branding him with personal shame. He retained his honor; he only lost his place.

"The whole world did not acquiesce in the justice of the verdict. Indeed, the world protested against that verdict by its noblest voices and its highest tribunals, and in the end it was completely set aside. Not a clause in the Lords' resolution was meant in earnest or was ever really enforced; some of the Peers confessed it was a cover for leaving him in the King's hands, and the Privy Council treated it as a parliamentary form.

"Half a day in the Tower, a week at Parson's Green, a year at Gorhambury, was the personal inconveniences of the vote. In the end he was *not* fined; *not* banished from the court; *not* really imprisoned; *not* held incapable of office; *not* excluded from the House of Lords.

"After his retirement from public life, neither the Crown nor society treated him as a man guilty and condemned. The King received him; the most eminent members of the Government corresponded with him; ambassadors from foreign Princes waited on him; the most learned bishops, the most famous poets, the most upright reformers, instead of shunning him as a guilty wretch, clung to him as a suffering martyr. Not a friend fell from him. In his poverty and retreat he was surrounded by men whom no money could buy and no sophistry could blind; by George Herbert, by Lord Falkland, the Earl of Arundel, Sir Henry Saville, Ben Jonson, Sir Edward Sackville, by John Selden, Bishop Andrews, Lord Cavendish, and Thomas Hobbes. Who will assert that one thus loved, thus followed in his retirement, stood before the world in the character of a guilty rogue? Herbert and Andrews, Sackville and Falkland, knew the truth. Their opinions on his case are not a secret; for they published them, not in words only, but in beautiful and expressive acts. Does any one believe that either Lancelot Andrews or George Herbert could have kept his friendship for a man really convicted of dishonesty? That either Lord Falkland or Sir Edward Sackville could have given his heart to a corrupt and degraded judge? Where men so noble and acute saw no offense, we may conclude there had been no offense.

"That the judges on the bench, that the members of both Houses of Parliament, concurred with the most eminent of their contemporaries, native and alien, in treating the offense, the charge, the submission, and the sentence as things hypothetical and political, which had hurt Bacon's fortune, but had not touched his honor, is apparent in the failure of every attempt, whether made in Parliament or in the courts of law, to disturb the judicial decisions recited in the Act of Submission. 'Never any decree made by him,' says Rushworth, 'was reversed as unjust.' These efforts failed because there was no injustice to overthrow, and there was no injustice to overthrow because there had been no corruption on the bench." Thus writes Dixon, himself an accomplished barrister at law and an impartial historian.

Lord Bacon's death occurred at London whither he had repaired from the estate of his wife at Gorhambury to attend a meeting of Parliament. This was in the spring of 1626. The weather was cold and the snow was still upon the ground. One day the philosopher, who was by no means strong, was taking the air with his physician. Struck with the notion that a cold temperature might be more desirable for the preservation of meat than was salt, or to find out whether, in fact, flesh could be so preserved at all, he purchased a dressed chicken, and gathering up the snow, filled with it the carcass of the dead fowl. While engaged in this act he was stricken with a chill and was driven to the house of Lord Arundel near by. The bed to which he was assigned had not been used for a year, and was damp. His host did all that was possible for his distinguished visitor, but at the end of a week Lord Bacon died of pneumonia. Perhaps it will be contended that he did not originate the idea of meat refrigeration!

We have quoted from the will of Aristotle to show the manner of man he was. Let us see how the will of Bacon, who forever replaced the philosophy of the great and good Greek, compares with that of his most eminent and influential predecessor.

"My name and memory," declares the testament, "I leave to men's charitable speeches, and to foreign nations, and to the next ages." He wished to be buried near his mother at Gorhambury. This was done. To his brother-in-law he left his books. "To the poor of St. Martin's-in-the-fields, where I was born, forty pounds; to the poor of St. Michael's, where I desire to be buried, because the day of death is better than the day of birth, fifty pounds; to the poor of St. Andrew's, Holborn, in respect of my long abode in Gray's Inn, thirty pounds." To the poor of St. Albans' three parishes, of Twickenham and of Redburn and of Hampstead, each twenty pounds. He bequeathed to his widow an ample income, and to the Marquis of d'Effiat his books of orison, "curiously rhymed." The residue of his estate he gave to the endowment, at four hundred pounds a year, of two lectureships at the universities, one on the Physical Sciences and the other on Natural Philosophy. If such a name as his—as Bacon's—has been too long connected with the "sacred name of philosophy," it would be interesting to know—whencesoever we look at Bacon or at philosophy—*whose* name more nobly deserves the association. He did not die until he had seen every one of the men who wrought his downfall, ruined and dishonored. To quote Dixon again: " 'All that were great *and* good,' says Aubrey, 'loved and honored him.' Great *and* good; the emphasis is Aubrey's own." This is the tribute of John Aubrey, who was competent to speak of Bacon's personal character and his place in the world of men and society. Of his place in the world of intellect, Lewes, who was at first disposed to adopt what Dixon calls the "fictitious biography," observes: "We have not dwelt upon his errors; neither have we dwelt upon the wondrous and manifold excellencies of that mind which Macaulay has so felicitously compared to the tent the fairy Peribanou gave to Prince Ahmed: 'Fold it, and it seemed the toy for the hand of a lady; spread it, and the armies of powerful sultans might repose beneath its shade.' "

Bacon's uses as a statesman have not endured. His importance to civil history may be of the slightest concern to that new and scientific method of considering history which is teaching us to regard the stories of individuals, of battles, of dynasties and of royal pedigrees as matters to be barely touched, if touched at all; that would dwell upon the history of Man and not upon the history of men. And if it be taught that a history of the growth of human knowledge is the highest concern of this new method, then Bacon's name will ever occur to the makers of the books in which such history is written down. His work, as part of the continuous process whereby man's mind assumes a larger and stronger growth, will be given its proper place for what he so confidently believed it to be—"the greatest birth of Time."

DESCARTES

Rene Descartes is almost always regarded as the greatest thinker of France, and he is frequently opposed to Bacon, with whom he was contemporary, as being the father of modern philosophy. Professor Huxley, who, in spite of his vast labors in the physical sciences, occupied some of his time with the consideration of philosophy, metaphysics, theology, exegesis, and, toward the close of his life, with social and economic science, places the Frenchman upon a pedestal so high as to almost obscure the real outlines of the philosopher's figure.

Descartes is famous for the oft-repeated formula, "I think, therefore I am," (*cogito, ergo sum*), a formula which does not seem to have been of more real value in the accumulation and unification of knowledge than the vain repetitions of the heathens. And, oddly enough, Professor Huxley is at as much pains to disparage Comte as he is to extol Descartes. This state of mind on the part of the eminent dogmatist of science is possibly due to a reactionary feeling of resentment against the former philosopher because he wrote of the sciences without having first discovered a *Bathybius Huxleyi,* which did not exist; a reaction which carried Huxley over into the camp of Descartes, who thought he had arrived at a knowledge of God and of soul by the application of his "Method of using the Reason."

The Cartesian method, which we will presently consider in relation to the Baconian method, is interesting enough, but not so interesting as the life of the philosopher himself.

When Descartes was born, in March, 1596, Bacon was thirty-five years old, and had already been a public man for nearly twelve years. The famous Frenchman was derived from a noble family of Touraine, who were, of course, intense Catholics, as are all noble French, and who saw that the boy was given an excellent education. The future thinker was puny as a lad, and it was probably owing to the fact that he was thus deprived of the enjoyments to which vigorous youth naturally turns that he gave himself up to study and to the delights and strife of the intellect. His education was confided to the Jesuits at their college of La Fleche. His masters found no necessity of spurring the delicate boy to his studies. He learned rapidly and absorbed all he was taught with an eagerness that was not altogether pleasing to his teachers, for he was in the way of asking questions that were dangerous to the orthodoxy of his future faith.

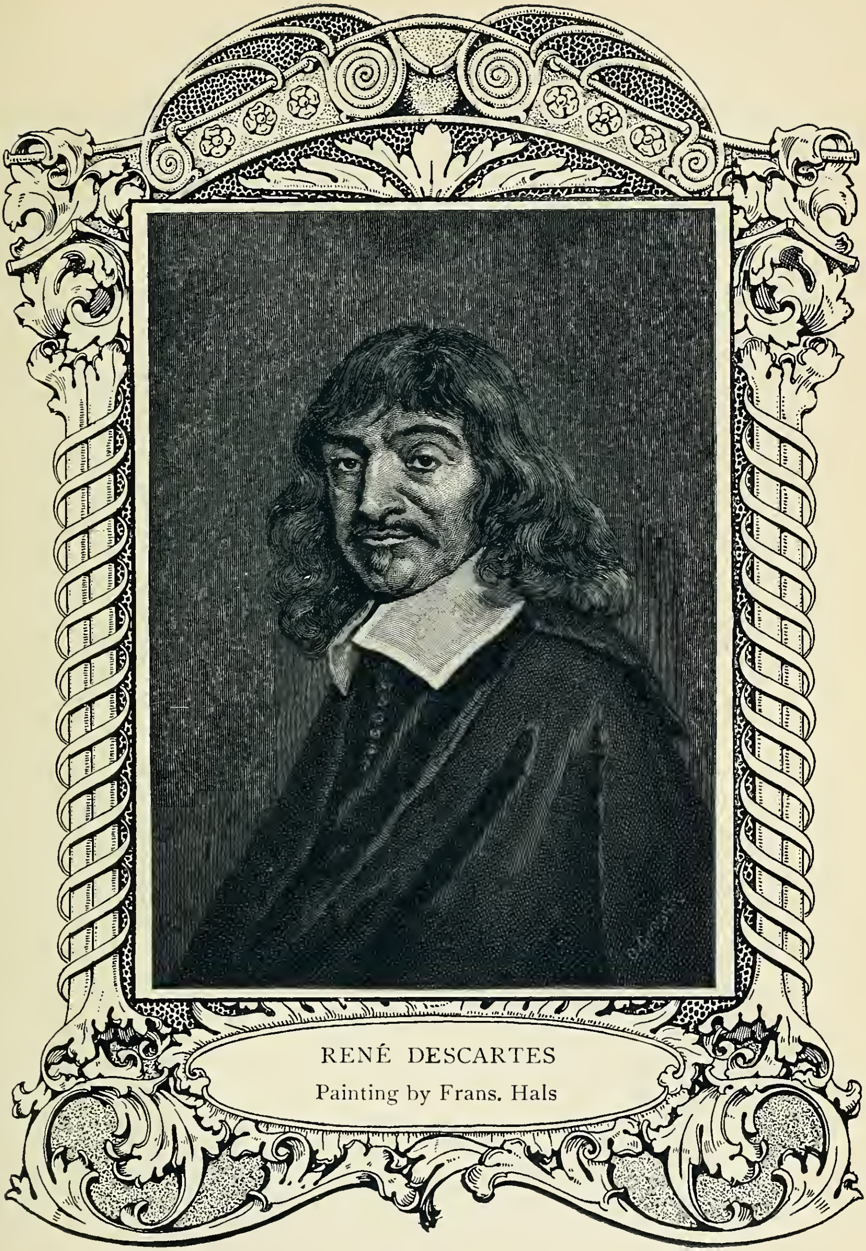
The Jesuits are capital educators in the arts, and it may be believed that Descartes was well trained in the humanities. He was especially proficient in *belle lettres,* in oratory, and in the study of mathematics. At the same time he disclosed a precocity of intellect in other things that was alarming to the ecclesiasts who were his professors. They deemed his persistent desire to have the *why* and the *how* explained to him as the manifestations of an unhealthy inquisitiveness. His father, amused at the boy's seriousness and his obtrusive propensity for asking "foolish questions," called him "my philosopher." When a boy who is no more than a fledgeling, gravely concerns himself about the processes of digestion, about the functions of the heart, and other physiological and biological questions of this sort, the best way to satisfy his mind is to teach him all he can understand about such matters. Now, physiology as conceived by the Jesuits in that day was the physiology of Aristotle. They could not answer Descartes' questions. Their astronomy, if they had any, was quite as bad as their physiology. Descartes, perhaps, desired to know why the moon was round instead of cubical. This, from the Seventeenth Century and Jesuitical point of view, was not only a foolish but an impious question. The moon was round because God had made it round. Why had God made it round and not cube? Another impious question. How were human beings and beasts created? Why had beasts four legs, and why did men have toes when they did not use toes? Why were men's faces bearded and women's faces smooth? Why was the sky round and fixed and solid as a dome? Why was it blue, and not green? How did food maintain the life of the body? What was blood? Why did men perform acts that pleased them and avoid conduct that pained them?

These are *childish* questions, and are put by children now as well as they were put by Descartes. The hunger of a growing mind is seldom satisfied, and the experience of having stones given it for bread atrophies the organ of mental assimilation, and the child, as a rule, grows up into a very ignorant man. But Descartes was not to be put off. If the Jesuits would not explain these things he would seek elsewhere. His thirst for knowledge only waxed the fiercer for being plied with gall and vinegar. He grew weary of the mechanical motions of the religious regimen he was required to live, and left the college. Going to Paris in quest of the larger sphere of thought he would find in the capital, he was caught in the whirl of Parisian gayety. Ere this he had passed his adolescence and much of his physical weakness had passed away. For the first time he regarded the pleasures of youth with a fond eye. He cultivated his muscles with the foil, slept well, ate heartily, and was not a stranger to those comforts and satisfactions that make the functions of the body a pleasure as well as a necessity. At twenty Descartes had gained health and strength, and his contact with the debonnaire life of the capital aroused in him an interest in the military spirit of his companions. He tried war, and served as a soldier in Holland, and afterward in Germany. But his bent was purely intellectual. There was nothing substantial for him in the pursuits of men such as he saw about him. Their concerns were no concerns of his. His interest in military matters was only half hearted, as was his interest in athletics. It is said he invented a *theory of fencing*.

Descartes put aside his uniform at twenty-five and turned his attention to the sciences. Being mathematical, he was attracted by the nascent science of optics, and spent some time in study and experiment with instruments of this character. Meanwhile his mind was busy with thoughts concerning a criterium of human knowledge and with speculations concerning God and the cause of things. The one-time soldier was contemptuously disregardful of the big-sounding names of heroes he found in history. These he cast aside as worthless. He adopted Bacon's method of interpreting nature and permitted the spirit of that method to guide him in all his scientific researches. He was careful to verify all his conclusions by rigid experiment, and it is possible that had he persisted in this course he might have placed his name on the grand roll of Seventeenth Century achievement. But he seems to have become impatient of

Baconian restraint and to have forgotten the warning of the English philosopher against flying to generalizations instead of creeping. On leaving the Jesuits' college at La Fleche Descartes said that his time spent in that institution had been wasted. This was probably a hasty judgment. If a knowledge of the arts is chiefly of conventional use, it cannot be denied that the arts prepare the mind for more serious pursuits and are by no means deterrents to a scientific career. Educators who now make it a fashion to affect a contempt of Latin and Greek, of history, and even of mathematics, take good care to show that they themselves are proficient in all these graces of mind. When Descartes became convinced that his education in college had only served to inform him of his own ignorance he implied that that education had been to him a vast and lasting good.

"As soon as my age permitted me to quit my preceptors," he says in his "Discourse," "I entirely gave up the study of letters, and, resolving to seek no other science than that I could find in myself, or else in the great book of the world, I employed the remainder of my youth in travel, in seeing courts and camps, in frequenting people's diverse humors and conditions, in collecting various experiences, and above all in endeavoring to draw some profitable reflection from what I saw. For it seemed to me that I should meet with more truth in the reasonings which each man makes in his own affairs, and which if wrong would be speedily punished by failure, than by those reasonings which a philosopher makes in his study upon speculations which produce no effect and which are of no consequence to him except perhaps he will be more vain of them the more remote they are from common sense, because he would then



RENÉ DESCARTES

Painting by Frans. Hals

have been forced to employ more ingenuity and subtlety to render them too plausible."

It is remarkable that a man with such a spirit and with such a disdain of the philosophy he found in the books should have remained a steadfast Catholic, but such is the fact. For all his science and his scorn and deduction, his works everywhere seek to placate the Church, and in practice he was a careful follower of the religion of Rome. He speaks of God in the most reverent way, and does not ignore theology by any means. He was anxious, it has been said, to escape the hindrances which he knew must surely have been put in his way did he proclaim himself heretic. He did not attack the authority of the Church as did Bruno. On the contrary, he called attention to the wisdom of his philosophy in having proved without doubt that God was a reality and that the human soul was immortal. Perhaps the ecclesiastical judges who passed upon his doctrines were no more deceived by these protestations than have been later critics. Not much toleration could be expected from a congregation that could find in the discoveries of Galileo a heresy or at least heterodoxy the most displeasing. Descartes' works, with all their theology, were placed upon the *Index Expurgatorius.* Protesting that he had demonstrated the existence of a God, he was condemned as an atheist by his former preceptors, the Jesuits, and his Christian friends in Holland denounced him as a limb of the Jesuits who, beneath an ostentatious pageant of words "*ad majorem Dei gloriam,*" concealed the virulent and subtle poison of the worst infidelity.

In such condemnations is nowadays found matter that appeals to one's sense of humor, but three centuries ago the man whose books were indicated by the congregation or objurgated by the Church was very near the dungeon or the rack, if not the blazing fagots. The congregation of the Index in the Nineteenth Century is a body of very learned men who are as competent, in a way, to pass upon scientific as upon theological subjects, but who do not concern themselves with pure science. The congregation has not escaped evolution, and wisely confines its activities to its own special function of inquiry into theological teaching. Even the Darwinian theory of the descent of man is only a question of demonstration with the congregation and has not been condemned. But Descartes lived in the Seventeenth, not in the Nineteenth Century. The universities of Utrecht and Leyden accused him of atheism and infidelity, and he was beginning to be sorely harassed when the Queen of Sweden invited him to her court and offered him the presidency of a scientific school which was to have been organized by him and endowed by her. His journey to Sweden was ill advised, for his health suffered from the rigors of the peninsular climate, and he died in 1650, one year after his works were condemned as dangerous.

In the very beginning of his philosophy Descartes declares himself a skeptic. But it must not be supposed that by this he means the skepticism of the Greeks, which doubted everything, even existence itself. He uses doubt as a means rather than as an end. He prefers it above all other means as the best instrument of ascertaining what can be known as certain. To doubt everything until its truth is established and the mind rests in perfect satisfaction as to its certainty, is the method proposed for himself by Descartes. He is skeptical of all matters save alone mathematics. "Mathematical certainty" is a proverb, but Descartes overvalues mathematics, which is perfect as an instrument of inquiry or verification when the premises with which it works are true. The computations of a Newton or of a Leverrier or of a Strauss had been worthless were they not securely based on the lodgment of facts. Mathematics is not a science in itself; it is a tool of science which can be used in the hand of the artificer to shape his block of thought into whatever form he wills. Once begun, the mathematical process is inevitably regular, and while the calculations may be absolutely true, mathematically, it does not follow that the conclusions are true in any way other than a mathematical way. The *form* of mathematics is constant; the *matter* of mathematics may be variable. But Descartes does not reject mathematics for this reason. He rejects it because it was not, in his opinion, of universal application. He reduces his method to four principles of procedure which may be described as follows: 1. Doubt everything until it has been demonstrated as true. 2. Subject all problems to the most careful analysis 3. Proceed from simple matters that are easy of comprehension to those matters that are more difficult of apprehension. 4. Take extreme caution that no possible factors are forgotten or ignored in your solution. This he declares to be the true method of inquiry and asserts that all those who use it will arrive at the same conclusion respecting all questions, diverse conclusions being manifestations only of disagreement in the methods used.

The method is safe enough, but Descartes did not permit himself to doubt as generously as his advice would lead us to believe. He assumes that he exists because he thinks. Sensation, perception, ideas, all may be questioned in the light that they are delusions or illusions, but the fact that consciousness itself exists is beyond cavil. In his metaphysics Descartes adopts the doctrine of innate ideas and in this way proves the existence of a God. It is evident, he argues, that such ideas as truth, infinity, unlimited existence, do not enter the mind from without. Those ideas that come from without are easily perceived as such. But if we have ideas that evidently have no external source whatever, we are driven to the conclusion that these ideas have been born with our consciousness, that the mind has been impressed with them from its beginning. One such idea is that of an infinitely good being. Thus we know that there must be an infinite being that has so informed our minds, and that infinite being is God. Therefore we *know* that God is. If there be no such infinite being, and this being be not the creator of the intelligence which so conceives of such being, whence comes the idea of God? Descartes here neglects his second principle. He does not exhaust the analytical possibilities of his problem. The problem is none other than that of the origin of ideas. The mind has no idea of the infinite.

Descartes asks, How can I have a clear conception of the infinitely perfect when I myself am finite and imperfect? His question is *petitio principii.* He *has* no idea of the infinite. That supposed idea is not a true idea, and he had reached this conclusion had he pushed his analysis sufficiently far. Such categories as the Infinite, the Unlimited, the Absolute, the Unconditioned (which Huxley says are capped with big letters in order to frighten people after the fashion of the ferocious headgear of fur worn by grenadiers) are mere negations. They are tricks of the imagination. They are not even correlations of thought. Darkness, for example, does not exist. It is the absence of light, which is a positive something—a true idea. We do not perceive darkness; we lack the perception of light. The infinite to man's mind is only the absence of the finite. Whether Descartes, in sober earnestness, thus attempted to establish the existence of the infinite as a fact which can be and is known to the mind, or whether he so argued, as is held by many of his commentators, because he did not desire to be anathematized, is beside the question. He does not seem to have fared much better than Bruno even though he escaped with his life.

More interesting than his theology are his conclusions concerning nature and man in their physical aspects. Here he again departs widely from the cautions he lays down in his method of procedure. We find him speculating on the qualitative analysis of matter, of the effect of spirit on matter, and teaching that the earth does not revolve around the sun, but is whirled forward in a vortex. One view entertained by Descartes is striking, inasmuch as it anticipates the mechanical theory now so widely entertained by men of science. Animals, he says, are mere living machines. This, at least, is the inference we are warranted in drawing from his writings. He did not give utterance to this view in plain words. Such utterance might have brought his researches to an intempestive end. But he compared the vital processes and activities of animals to those of an automaton controlled by a motive power within or without the mechanism. Anatomy and physiology have indisputably proved that in this theory Descartes was perfectly right. But psychology departs from him when he teaches that the soul is an immaterial something which acts on the body of a man through the pineal gland. Psychology does not take into account any organ which physiology and anatomy do not demonstrate. It regards the nervous system as a mechanism, but deals only with the phenomena presented by the action of that mechanism, or apparatus, and does not assume an hypothetical soul to explain the phenomena of mind, reducing these phenomena, as it does, to motions of nerve matter and rearrangement of ganglion cells. The mechanical theory, as we have seen in a former section, was held by the Greeks, and Descartes did no more to demonstrate its truth than did the ancients themselves. Descartes' psychology is primitive. He divides the emotions into six principal passions, and discusses the "animal spirits" as if the words conveyed to him a definite meaning. Deity is the central point of his system. The judgment of critics like Professor Huxley will not hold if we remove the Godhead from Cartesian philosophy.

The value of the Cartesian method no one will gainsay. But when it is compared with the clearly defined and simply stated formula of the Baconian method laid down in *Novum Organum*, and quoted in a preceding page, it will be difficult for even the most pronounced defamer of Bacon to make a choice in favor of the continental philosopher. The more difficult will be such judgment if it be remembered that Bacon's work was already in print while Descartes was yet a soldier in Bavaria, and was just beginning to conceive his plan of reforming philosophy. That he reformed philosophy does not appear in his system. To Bacon and to Bacon alone is due the credit for having placed philosophy on a basis that is totally independent of theology, and the basis upon which the methods of the present day rest secure.

HOBBES AND LOCKE

It is not astonishing that a man such as Thomas Huxley should express the highest admiration for a man such as Thomas Hobbes. If Huxley's opinion is valuable no one can withhold from Hobbes a full measure of praise. Hobbes has been condemned as a materialist and an atheist by many persons who have never done him the common justice of reading his works, or at least of reading the works in which his philosophy is defined. But if he has been severely judged by the few who were not informed, or were misinformed, and who were, therefore, incompetent to pass any judgment whatever, he has been as highly commended by the many who have been to the trouble of finding out what he really believed.

To the assertion that Hobbes was a materialist, and perhaps the first materialist, we can readily assent. With the assertion that he was an atheist no one who is at all familiar with his writings can agree. When a man openly and honestly professes that his creed is that "Jesus was the Christ," placing this as the first internal act of faith, and further holds that the other essential to salvation is obedience to the laws of God, it is difficult to see wherein any one can find matter for charging him with atheism. It is not impossible that such charges have grown out of that narrow egotism which can see Deity in nothing but what may be found in the numbered articles of a creed. That Hobbes was a reverent and true Christian there can be no more doubt than that he lived. For he had a way of saying what he thought in such blunt words as to leave no possible room for even the most finical to misconceive his meaning. And in that characteristic of his style is perhaps to be found the cause of his great unwelcomeness to not a few.

Before entering upon the details of his biography, which are full of interest, it will be well to understand what fashion of man he was, and with what clearness and brevity he could discourse upon most difficult matters. To begin with, he did not place much faith in books, although he placed enough to become familiar with the thoughts of men who had preceded him. "If I had read as much as some others I should be as ignorant as they are," he said. Most of the quotations used here have been selected from his two books, *Leviathan* and *Human Nature,* and have been considered by Lewes as adequate for the expression of Hobbes' leading doctrine, the doctrine which gives him his place in philosophy. Professor Huxley advises those who would know all that is worth knowing about philosophy to read carefully Hobbes and Hume—the materialist and the skeptic—and to dispense with all others, a bit of counsel that is intensely Huxleyan if no more.

"Harm I can do none," says Hobbes, "though I err no less than other writers, for I shall leave men but as they are, in doubt and dispute; but not intending to take any principle upon *trust,* but only to put men in mind of what they know already, or may know by their experience, I hope to err less; and when I do, it must proceed from too hasty concluding, which I shall endeavor as much as I can to avoid." This is the method which leads him to all the conclusions of his philosophy. Hobbes had looked about him, and he was not insensible to the huge delusions entertained by men generally. He observed nature, and he analyzed closely the processes that were going on in his own mind. He had no "respect" whatever for popular opinion. "Man," he remarks, "has the exclusive privilege of forming general theorems. But this privilege is alloyed by another, that is, the privilege of absurdity, to which no living creature is subject but man only. And of men, those are of all most subject to it who profess philosophy. When men have once acquiesced in untrue opinions, and registered them as authenticated records in their minds, it is no less impossible to speak intelligibly to such men than to write legibly on a paper already scribbled over." Hobbes lived at the same time as Descartes, and it was not until much later that men were wise enough to find in general ignorance material for profound philosophical consideration.

Taking up the question of mind, Hobbes proceeds in delightfully simple and easily understood exposition. He says: "Concerning the thoughts of man I will consider them first singly and afterward in a train or dependence upon one another. Singly, they are every one a representation or appearance of some quality or other accident of a body, without us which is commonly called an *object*. Which object worketh on the eyes, ears, and other parts of a man's body, and by diversity of working produceth diversity of appearance. The original of them all is what we call *Sense*, for there is no conception in a man's mind which hath not at first, totally or by parts, been begotten upon the organs of sense. The rest are derived from that original [origin].

"According to the two principal parts of man I divide his faculties into two sorts: Faculties of the body and faculties of the mind. Since the minute and distinct anatomy of the powers of the body is nothing necessary to the present purpose, I will only sum them up in these three heads: Power nutritive, power generative, and power motive. Of the powers of the mind there be two sorts: Cognitive, imaginative or conceptive, and motive.

"For the understanding of what I mean by the power cognitive, we must remember and acknowledge that there be in our minds continually certain images or conceptions of things without us. This imagery and representation of the qualities of the things without us, is that which we call our conception, imagination, ideas, notice, or knowledge of them; and the faculty or power by which we are capable of such knowledge is that I here call cognitive power, or conceptive, the power of knowing or conceiving."

We have knowledge of things about us, he holds, because these things press upon the organs of our bodies and make themselves felt by their motions, and the knowledge we have of their externalities is itself motion only—motion within us corresponding to motion without us—"for motion produceth nothing but motion."

The father of materialism thus reduces philosophy to problems of the mind, entirely setting aside all questions pertaining to theology as matters without the sphere of reason, having nothing whatever to do with psychology, and being the material quite of faith and not of knowledge. That is why Hobbes could be a materialist and a careful and conscientious believer both in God and Christianity and be thoroughly consistent at the same time.

Materialism to-day has not lost the reprobation that attached to it in the time of Hobbes. When Spencer, who has gone out of his way to positively declare that whatever he may be he is in no sense of the word a materialist, and when Huxley, who has almost fiercely objected to the word as applied to him, still suffer under the charge, it may be worth while to go on and learn just what this bugbear of a doctrine really is as conceived by the Englishman who originated it.

Hobbes says that we can think of nothing which the body has not first seen, heard, or felt; imagine nothing which has not first been perceived by the senses or which is not compounded of thoughts which came originally into the mind from without through the channel of the senses. Thus, it is possible for us to imagine an animal made up of a man's head, a lion's trunk, the tail of a fish, the wings of a bird, and the legs of an elephant. Such a figure may be drawn upon paper. But it is manifest that this fanciful figure is only a compound of the parts of various animals that human eyes have already seen. The same is true of all other ideas. For example, we cannot conceive of an odor that has never been smelled except we mentally compound various odors that have been already sensed by the olfactory nerve. A traveler who returns to the tropics and who has discovered there a flower emitting an odor, the *like* of which has never been perceived by persons in the temperate zone, could not possibly describe the new odor to such persons. Let him name over all the odors in their experience. The new odor is totally different from them all. Clearly, no conception whatever of that odor can be formed bv those who have not actually perceived that odor itself. The mind, with reference to it, is a perfect blank. But let the traveler say, it *resembles*, or is *like*, the odor of *cinnamon*, and a conception is formed at once.

Let us go a step further. The idea of *truth* or the idea of *pure spirit* has not surely entered the mind through the channel of sense, the opponent of materialism will say. The materialist will reply, You have no conception of *truth* except in so far as your senses have told you that experience verifies assertion or conforms with conclusions drawn from the putting together of experiences known singly. These conformities and these verifications are compounded in the mind, and the notion of *truth* in general is thus obtained. Of pure spirit you have no idea whatever. The words convey to the mind no meaning save that involved in the words, *no material thing*. You cannot draw a picture of a spirit. A spirit is *like* nothing.

But, the opponent of materialism may argue, we can conceive of a perfectly straight line, of a perfect circle, of a perfect cube, or of two angles that are perfectly equal. Man has never yet *seen* a geometrical line—a line that has length but neither breadth nor thickness. The materialist will reply, I have already answered you in explaining your idea of truth. You have seen with your eyes and felt with your hands lines, circles, cubes, and angles that were as perfect as instrument could make them. It is these that are reflected in your mind. Had the eye not seen such figures the mind could never conceive them in any manner whatever. Had not the eye of a man first seen, or his fingers felt, a physical circle, it would be as impossible for him to conceive a circle, imaginarily perfect, or otherwise, as it would be for him to conceive an odor, the like of which he had never known.

Now, remembering that Hobbes holds that sensations are only motions within us which are communicated by motions from without, he is led to the conclusion that internal motions do not *resemble* external motions. And in this crude manner he describes what is to-day almost everywhere admitted as self-evident truth. That ideas, or feelings, or sensations, or thoughts, in nowise are like their external causes, he says, is true "because the image in vision consisting of color and shape is the knowledge we have of the qualities of the object of that sense. It is no hard matter for a man to fall into this opinion, that the sense, color, and shape are the very qualities themselves, and for the same cause that sound and noise are the qualities of the bell or of the air. And this opinion hath been so long received that the contrary must needs appear a great paradox. I shall endeavor to make plain these points: That the subject wherein color and image are inherent is not the object or thing seen. That there is nothing without us (really) which we can call image or color. That the said image or color is but an apparition unto us of the motion, agitation, or alteration which the object worketh in the brain, or some internal substance of the head. That as in vision, so also in conceptions that arise from the other senses, the subject of their inference is not the object, but the sentient."

Sound exists, then, only in the brain, and is very different from the motion of the matter outside the brain that, communicated to the brain, causes the sensation we know as sound. The truth of this is indisputable. So also of all the other operations of sense. It is easy to understand that sound is not identical with the air waves that, beating against the eardrum membrane, agitate the auditory nerve which translates the vibration into terms of sensation when it reaches the brain. But if this is true of the sense of hearing the application of the principle is to be made to every other sensation. Such qualities as hardness, roundness, color, are mental, or cerebral only.* They exist nowhere but in the brain. Such a statement is necessarily false to the common way of thinking. To Hobbes (and to some others who are alive to-day) it is necessarily true. In illustrating this doctrine of Hobbes, Locke makes use of an example that has been the model for all who have attempted the same performance. A knife is plunged into the flesh. The sensation resultant is one of *pain*. Yet, however we regard it, that sensation is utterly unlike its cause. The external cause of the internal feeling called pain may be said to lie in the knife itself, the motion of the knife through the tissue and the severance of the nerves the blade passes through. The knife is hard, sharp, and blue. The pain is not *hard*, neither is it *sharp* nor *blue*. The knife is cold. The pain is not cold. Tissue is severed. The pain is not severance. Nor is the pain one with or like the motion of the knife or of the disrupted tissue. The knife cutting through the nerves communicates to the nerves motion. This *nerve* motion reaches and moves the brain. The result is the sensation we call pain.

This is a discovery, and a most important one. The ancients thought of the same thing in an indirect way, but did not so well define it as it is defined here. The thought that ideas are not copies of things was not a new one when Hobbes wrote his book, but what to the ancients was a mere confused notion presented itself as a clear concept to the mind of the father of modern materialism. Hobbes says that the origin of all ideas is in the sense, but he also recognizes other functions of the mind which deal with ideas thus received, which compound and combine sense perceptions, and out of these compounds arise ideas which do not seem to have been derived through the channel of sensation.

---

* The word *mind* is here used as meaning only a bundle of sensations.

Of these functions he places the imagination first. "That when a thing lies still," he says, "unless somewhat else stirs it, it will lie still forever, is a truth which no one doubts of. But when the thing is in motion it will be eternally in motion unless somewhat else stays it, though the reason be the same, namely, that nothing can change itself, is not so easily assented to. For men measure not only other men, but all other things, by themselves; and, because they find themselves subject, after motion, to pain and lassitude, think everything else grows weary of motion, and seeks repose of its own accord; little considering whether it be not some other motion wherein that desire of rest, they find in themselves, consisteth." This process, which Hobbes calls imagination, is, he says, but "decaying sense." "When a body is once in motion it moveth, unless something hinder it, eternally; and whatsoever hindereth it cannot, in an instant, but in time, and by degrees, quite extinguish it; and as we see in the water, though the wind cease, the waves give not over rolling for a long time after, so also it happeneth in that motion which is made in the internal parts of man; this, when he sees, dreams, etc. For after the object is removed, or the eye shut, we still retain an image of the thing seen, though more obscured than when we see it. The decay of sense in men waking is not the decay of the motion made in sense, but an obscuring of it, in such manner as the light of the sun obscures the light of the stars; which stars do no less exercise their virtue, by which they are visible in the day than in the night. But because among many strokes which our eyes, ears, and other organs receive from external bodies the predominant one is sensible; therefore the light of the sun being predominant, we are not affected with the action of the stars."

Hobbes' psychology is therefore seen to be what is really the psychology of to-day. If man's thoughts all arise out of sense perceptions or impressions, it can hardly be said that the "soul" is immaterial, because everything that is (every real thing) must occupy space, and that which is not material cannot be so extended. Of course, Hobbes' speculations with reference to the action of the mechanism or apparatus that is found in the cerebro-nervous system are as crude as the primitive stage of psychological science in his day would warrant. But no one will deny that the English materialist took a long step forward when he discovered that *internal feelings* are merely motions communicated to the nervous organism by other material motions outside of it.

To one other matter did Hobbes call attention. It is a matter that has provoked no end of thinking, speculation, and writing among metaphysicians which might as well have been spared, for not one of them advanced any further than did he. This matter he thus describes:

"When a man thinketh on anything whatsoever, his next thought after is not altogether so casual as it seems to be. Not every thought to every thought succeeds indifferently. But as we have no imagination whereof we have not formerly had sense in whole or in part, so we have no transition from one imagination to another whereof we never had the like before in our senses. The reason whereof is this: All fancies (i. e. images) are *motions within us, relicts of those made in sense;* and those motions that immediately succeed one another in the sense continue also together after the sense; insomuch as the former coming again to take place and be predominant, the latter followeth by coherence of the matter moved, in such manner as water upon a plain table is drawn which way any one part of it is guided by the finger. This train of thoughts, or mental discourse, is of two sorts. The first is unguided, without design, and inconstant, wherein there is no passionate thought to govern and direct those that follow to itself, as the end and scope of some desire or other passion; in which case the thoughts are said to wander, and seem impertinent to one another, as in a dream. Such are commonly the thoughts of men that are not only without company, but also without care of anything; though even then their thoughts are as busy as at other times, but without harmony; as the sound which a lute out of tune would yield to any man; or in tune, to one that could not play. And yet in this wild ranging of the mind, a man may ofttimes perceive the way of it, and the dependence of one thought upon another. For in a discourse of our present Civil War, what would seem more impertinent than to ask, as one did, what was the value of a Roman penny? Yet the coherence to me was manifest enough. For the thought of war introduced the thought of delivering up the King to his enemies; the thought of that brought in the thought of the delivering up of Christ; and that again the thought of the thirty pence, which was the price of that treason, and thence easily followed that malicious question, and all this in a moment of time; for thought is quick."

This is nothing more, with proverbial example, than an exposition of the "association of ideas."

Thomas Hobbes was a man noted for other accomplishments and abilities not concerned with his great work in the field of philosophy. He was a student of law that had few superiors even in that age of England's great lawyers. He was born at Malmesbury on April 5, 1588. His father was a clergyman of the Church of England, and saw that his son was given all the advantages of an university training. He came out of Oxford at the very early age of twenty, and engaged himself to Lord Hardwicke, afterward the Earl of Devonshire, as tutor to Hardwicke's son, the heir to Cavendish. Tutor and pupil went abroad. In the learned centers of France and Italy it may be imagined that while the future philosopher was training the mind of his noble charge he was not neglecting the development of his own. When the young men returned to England Hobbes, upon the invitation of his pupil and patron both, took up his residence with the family. He was the friend of the most learned men of the England of that time. He met Ben Jonson, was the companion of the Scottish poet, Ayton, and knew well the great Bacon, whose method he does not seem to have misunderstood or misapplied.

In 1628 Lord Hardwicke's son died, and Hobbes returned to France and there gave himself up to the study of the higher mathematics. Later he went to Pisa, and there met Galileo. During his stay on the Continent he became the intellectual and social intimate of Father Mersenne, Sorbiere, and Gassendi. Descartes knew him, and the two were for many years associated in such delightful correspondence as we can imagine possible to two such men. While he was abroad the philosopher became sick, and was convinced that he was about to die. In this extremity he sent for the learned Dr. Cosin, who gave the materialist such religious consolation as he felt in need of. It was while in Paris that he wrote his two famous books, *Human Nature* and

Leviathan. Both were published in England, the first in 1650 and the second in 1651.

When he returned to England for the third time Cromwell was in power. Hobbes now began to make new friends, but we still find that his friendships are most fortunate. Cowley, the poet, admired him, Vaughn, the distinguished jurist, was proud to know him, and Harvey, the discoverer of the circulation of the blood, numbered him among his intimates. After the restoration the philosopher was given a pension of one hundred pounds a year, but the peculiar manner of his philosophy and his strange doctrines concerning the knowledge and the mind of man were, it would appear, shocking to the established convictions of the people. We therefore find Parliament in 1666 censuring his books. Force was soon given this act of censure by the passage of a law providing for the suppression of atheists, and Hobbes, who had been so careful in making it perfectly plain that no matter what else he might be he was atheist in no sense, became alarmed. He now abandoned the pursuit of philosophy, possibly because he thought that he had written enough in that field.

At the extreme old age of eighty-four Hobbes undertook the task of writing his autobiography in Latin verse. He was meanwhile busying himself with the translation of Homer's Iliad into English poetry. The translation of Homer was published in parts. He would be a severe critic who could find it in his heart to hold up the work of a man in his ninth decade of life to those standards by which the best performances are ordinarily judged. Pope, who came after him, remarked that he would not criticize Hobbes' translation for the reason that it was beneath criticism, yet there are those who can see in the rough touches of the blunt old philosopher a spirit more Homeric than is to be found in the singing lines of Pope himself.

LOCKE

Although Hobbes is really the father of modern materialism it is Locke who is more frequently given the credit of the paternity. Locke has been more correctly called the father of modern inductive psychology; for although he developed the philosophy of Hobbes he can hardly be said to be a materialist in the complete sense of the word. He denied that he had ever read his great predecessor, but he follows him so closely in many respects that some have not believed his own statement in that regard.

Why discredit him? There is no good reason for thinking that two, or even several, men should not have thought in the same way in close temporal proximity to each other in the range of years that cover the two philosophers. European philosophy, indeed, was ripe for just such a step. But even though Locke did borrow from Hobbes he deserves a no less prominent place among the great minds of England—and of the world—for that reason.

And Locke did more than merely improve upon, develop, and set forth the ideas of the philosopher of Malmesbury. He led the way for Berkeley and Hume—Hume, of whom a Huxley is the biographer and whom Windelband pronounces to be the greatest philosopher of England. Then, too, it may be said that Locke was the first insular philosopher who set forth a *system* with great profundity of thought, going into remote analysis and carefully defining his terms so that there can be no dispute about his meaning. In definition and analysis he dived beneath the depths of Hobbes, was not so easily satisfied as his precursor, and brought philosophy to that position that prepared the world for its last efforts. His book, *Essay Concerning Human Understanding,* is a work from which can never be withheld an admiration as sincere as that which is accorded to any work from the pen of a man.

John Locke was born in the year 1632 in a little cottage in Somersetshire. Bacon had passed out of life just six years before. Spinoza was not yet born; indeed there was but three months' difference between the ages of the English psychologist and the Continental pantheist. While not wealthy, the family of the Lockes was well descended, and the education of the boy was carefully watched. At nineteen he had finished his preparatory course at Westminster School and then entered Christ Church College, Oxford.

Fortunately for the enlightenment of England the young man was placed under the care of a "fanatical tutor," as his preceptor is called by Anthony Wood. This tutor was the very man to inspire the nascent thinker with a deep-seated conviction that the metaphysics taught at Oxford was not nutritious food for his very capable mental digestion. Yet Locke won some praise as a student, and did not neglect to reap a good harvest of knowledge from the libraries of the university, or at least to gain such knowledge as he could in this way. At twenty-three our philosopher is a Bachelor of Arts—a degree he did not disdain as did Bacon. Soon after he had quitted Oxford he began the study of medicine, and medicine was the profession he followed through life.

From a man of Locke's scientific bent it would be hard to expect a philosophy other than was his. From his youth he was given to observation and experiment. He was a correspondent for years of the noted physicist Boyle, who improved the air pump and who conducted numerous experiments with the atmosphere. In Boyle's "History of the Air" appears the record of Locke's observations on the weather, kept faithfully by the philosopher for several years.

Something of the young man's character when he was in college may be gathered from Anthony Wood, a libersided man of the Church, who was a fellow student of the great Boyle's assistant. "This same John Locke," says Wood, "was a man of a turbulent spirit, clamorous and discontented. While the rest of our club took notes from the mouth of our master, the said Locke scorned to do this, but was ever prating and troublesome." In other words, he was one of the men who become great in spite of their schooling rather than because of it.

A physicist, a chemist, a psychologist, a physician, a philosopher, Locke might have been a divine. But he declined a most tempting offer in the last named direction in order that he might pursue the work his mind was most attracted to. For the same reason he took long vacations from the practice of medicine to "descend within himself," and there, in the depths of his own mind, to catch truth as it played at in and out through the shift and the change of his thoughts.

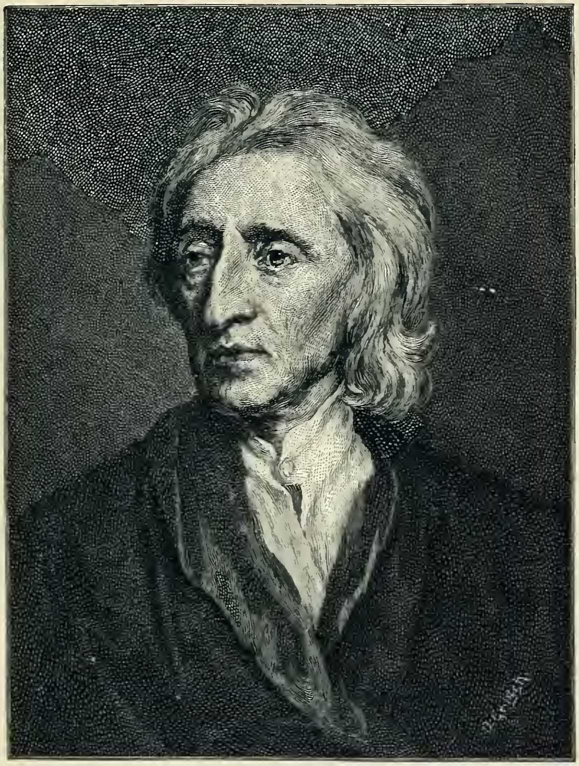
While yet in his early twenties the philosopher went abroad as secretary to Sir Walter Vane, an envoy to the German Princes. He visited many cities of the Rhine, and before his return spent some time in Holland. Diplomacy, with all its seductive allurements of travel among strange peoples, did not attract him. It is probable that even had he yielded to the temptation of entering the diplomatic service, the world had not yet suffered the loss of the great *Essay*, but its conception and plan were in large measure due to his return to England and to his most fortunate acquaintance with the first Earl of Shaftsbury. At thirty-four Locke met this generous gentleman and found in him a patron whose genial influence nurtured the great design already forming in the wonderful brain.

During the life of the Earl the physician and philosopher was thrown into association with the brightest men of the time. With ample leisure for study, in easy circumstances, and relieved from professional work that had hindered his plans of philosophy, he could devote himself almost wholly to the gratification of his highest desires. His experience in politics, though pleasant enough, did not result in any distinction, and it is no surprise, therefore, to find him retreating to Holland after the death of Shaftsbury in 1683. While in Holland he was charged with having written against the British Government, and he narrowly escaped extradition and punishment. But after the revolution he returned to England, and might have gained a high place in the State had he cared to press his claims. His letters on Toleration had made him the foremost champion of the principles on which the revolution was founded, but he preferred to accept the invitation of his learned friend, Lady Masham, at whose country place he spent the last fourteen years of his life.

The *Essay* was first published in 1691, but Locke had been at work upon it for more than twenty years. A rough draft of the book was made in 1671. An abridgement of it was published in French in 1688. When it was published in England it was not quite new and came with a reputation before it. It made a tremendous impression, divided thought into two camps, and even in the present day there are found philosophers who, *qua* philosophers, still criticize its doctrines and endeavor to prove that the principles enunciated in the work are not true. Locke died on the twenty-eighth day of October, 1704, at the age of seventy-three years. Just before his death Lady Masham began to read to him from the Psalms. In the midst of her reading he stopped her, saying the end was come. His last words were that he was "in perfect charity with all men, and in communion with the Church of Christ by whatever name it was distinguished."

The philosophy of Locke is set forth in his book on Human Understanding, which was twice revised and enlarged by its author. It is without the present purpose to inquire into the opinions he held concerning ethics, politics, and religion. It may be said, parenthetically, that he has been called an atheist, and there may be some reason, from some points of view, for this charge. But if Locke's own understanding understood itself, he was as firmly convinced of the existence of a Being which he called God as he was of his own. He might have been assured that *some* gods did not exist. But he proves to his own satisfaction, at all events, that *one* God *does* exist.

Deriving little satisfaction from the contemplation of other men's writings or of other men's thoughts, he set himself the task of finding out for himself whence are derived the thoughts with which men's minds are busied. When he has once analyzed his own mind and discovered its laws, he has arrived at certainty for human understanding in general, for he assumes that the minds and understandings of all men are alike.



JOHN LOCKE

Painting by Sir Godfrey Kneller, The Hermitage
St. Petersburg.

Some things, he discovers, are beyond the comprehension of any mind whatever. With these, he says, it is worse than useless to meddle. Better to sit down in quiet ignorance of things that are hopelessly beyond our comprehension than try to decipher the undecipherable. He hopes to teach men to consider these matters that may be of some use and purpose in their limited lives and to leave alone the incomprehensible. His plan, then, is to find out whence human ideas are derived; i. e., the origin of ideas. Ideas he calls by that name itself, or "notions, or whatever else one may please to call them, which a man observes and is conscious to himself he has in his mind." He will attempt to discover how the mind is furnished with these ideas, or notions; on what the certainty of its knowledge is based, and the grounds for faith.

In the very beginning he rejects the doctrine of "innate ideas," ideas or thoughts *born* with the mind. An idea is "whatever the mind can be employed about in thinking"—a sweeping definition. If there are innate ideas they must be common to all minds. Now, there are precisely no such ideas. For example, such a self-evident truth as that expressed in the words "What is, is," is not universally known. If the mind has not always had in it a certain idea, or present to it a certain something of consciousness, such idea cannot be said to have been *born* in the mind with the mind's birth. Of course, the mind is born with a receptivity for ideas. It is like a newly made cabinet, in which may be placed certain curios or articles. But who will say that a cabinet is made with such contents already it it? The mind is like a white page, upon which words may be written. Who will say that all white pages have some words already written upon them when they are manufactured? That no white page can exist without words so prewritten?

Neither can it be said truly that there are innate principles. Conduct is right or wrong because it is profitable or hurtful. The golden rule, and "honesty is the best policy," are absurd to the savage. Locke, therefore, reduces conscience to a mere matter of habit, usage, education, or experience. No mind is born with a conscience ready made. To prove this he refers to children and savages, a method that is now very popular, but which drew from Locke's critics smiles of derision or cataracts of vituperation. All such principles as right and wrong, moral responsibility, and conscience, are the products of experience and education. The mind comes into the world perfectly clear of all of them. Innate ideas, such as the idea of God, which Descartes held to have been born with the mind, because the mind *could not get it from without,* Locke rejects. We will presently see how he derives them.

Whence then, come all ideas, thoughts, notions, feelings, and all with which consciousness has to do? Locke answers, by two processes: First, the process by which the body becomes aware of things without it; second, the process by which the mind, in ordering and comparing the sensations so generated, originates ideas that do not come directly from the things without. The first process is sensation; the second, reflection, or internal sense. This latter process of the mind, called by Locke reflection, is called reason by Hobbes, but Hobbes did not go so far as Locke in his distinction between it and sensation directly. Indeed, Hobbes taught not so much that the mind has power to *combine* ideas in forms different from these in which things seem combined to the sense, so much as that the mind has the power to *conjoin* ideas in manners different from experiences of the sense. Yet when we say that Hobbes anticipated Locke in the doctrine of reflective combination of ideas we do not read into Hobbes much more than is to be found in his philosophy.

But whether or not Locke drew the suggestion of *reflection* from Hobbes, it was Locke who stated it clearly and understandingly for the first time. The truth might have presented itself to Hobbes, but he lacked the ringingly clear expression that Locke gave it.

Reflection, then, serves to make another set or kind of ideas than these directly derived from the sense, and so serves by considering the first set, separately and together, to evolve apparently original ideas that seem not to have sprung from the sense at all. Throughout "all that good extent wherein the mind wanders," says Locke, "in those remote speculations it may seem to be elevated with, it stirs not one jot beyond those ideas which *sense* or *reflection* have offered for its contemplation." The mind has a quality whereby ideas are impressed upon it. Things have qualities whereby they are empowered to impress ideas on the mind. Bodies have two qualities, primary and secondary. The first are motion, form or shape, extension, dimension, rest, and number. The secondary qualities are those such as smell, taste, color, etc. God annexes certain ideas to certain qualities; why, we do not know.

Ideas are simple and complex. It is impossible for mind to conceive a perfectly new simple idea, nor can it destroy any of such as it possesses. The mind by combining simple ideas can invent an infinite variety of complex ideas. It is in this manner we arrive at the idea of God. This idea is formed by the mind's adding to the idea of infinity the idea of intelligence. It may be difficult to understand how one who can so ingeniously construct a theory for accounting for the idea of God could himself place much faith in the existence of such a Being as any reality without his own mind. But Locke, be it remembered, was dealing with his *own* mind, and when he comes to discuss the question of the true existence of God, he seems in no doubt whatever. We know God is, he argues, by the fact that we ourselves are. "There was a time," he says, "when there was no knowing being and when knowledge began to be, or else there must have been also a knowing being from eternity. If it be said there was a time when no being had any knowledge, when that eternal being was void of all understanding, I reply that then it was impossible there should ever have been any knowledge, it being as impossible that things wholly void of knowledge and operating blindly and without any perception, should produce a knowing being as it is impossible that a triangle should make itself three angles bigger than two right ones. . . . I presume I may say that we more certainly know there is a God than there is anything else without us."

Locke was totally unacquainted with the teachings of Buddha, who rejected matter as having any real existence whatever, and who was thereby led to the conclusion that there could be no God. Nor did he know of Brahminism, which resolves all that is into God. Modern evolution, with its "promise and potency" of all forms of life in the "primordial atom" was yet to come.

Was Locke an atheist? To this question, if we judge by the conclusions to which his "first philosophy" drives us, we must answer, Yes. If we judge by his earnestness in attempting to prove Deity from his premises, there can be no answer but a negative one.

To sum up his philosophy we may say that he held that the mind derives its ideas primarily from the sense and remotely from the combination of sensational impressions; that what is called intuitive knowledge is no more than knowledge derived from the sense itself or by the relations between ideas so derived; and that scientific knowledge reaches no farther than the existence of the things that are actually present to the senses. Locke's whole philosophy might be stated in the theorem which came afterward much into fashion: "There is nothing in the intellect which was not first in the sense."

Locke had many critics both in England and on the continent, the most important of whom was Leibnitz, but none of these are worthy of much attention. The sensational school had said, "There is nothing in the intellect that was not first in the sense." Leibnitz replied, "Except the intellect itself." Lewes disposes of this answer by comparing it with the absurdity, "I have no money in my purse except my purse itself." But these are matters that are concerned only with philosophy. In the course of more than two centuries the famous *Essay* has been read and wrangled over by philosophers who, if they could agree on nothing else, were all one in condemning Locke because he retired within his own mind, made observations there, and then told mankind the results of his inquiries. He lived in an age when science was adding victory after victory to its achievements and rapidly thrusting aside the old ways of thought.

The Greeks and the Scholastics had had their day. Men were engaged in weighing the sun and counting the stars. Bacon's influence was rising higher and higher and in Locke's time found its most able follower in the author of the *Essay;* physical science was reaching out into new avenues of investigation; the Eighteenth Century, with its great leaps in knowledge, was about to begin. Locke, in the spirit of the age, did all he could to rescue philosophy from the absurdities that had dominated it. He wrote down his thoughts in plain words intelligible to all men. He advised men to think about those things which they could understand; to try to know the knowable and to leave the unknowable alone. His success in that respect, at least, was notable. More scientific than Bacon, he managed with Bacon's method to evolve a rational theory of knowledge and its origin, and to leave behind him a symmetrical, solid system which, if not all true and proved, was not shocking to those minds who, like Thomas Hobbes, did not desire to take anything upon *trust.* His theories of morals and law were based upon the same self-reliant and courageous foundation as that upon which he based his psychology, and necessarily.

Locke's name stands out like a mighty mountain seen from distant plains, rising in a range beside other mighty mountains. His critics are the unseen foothills.

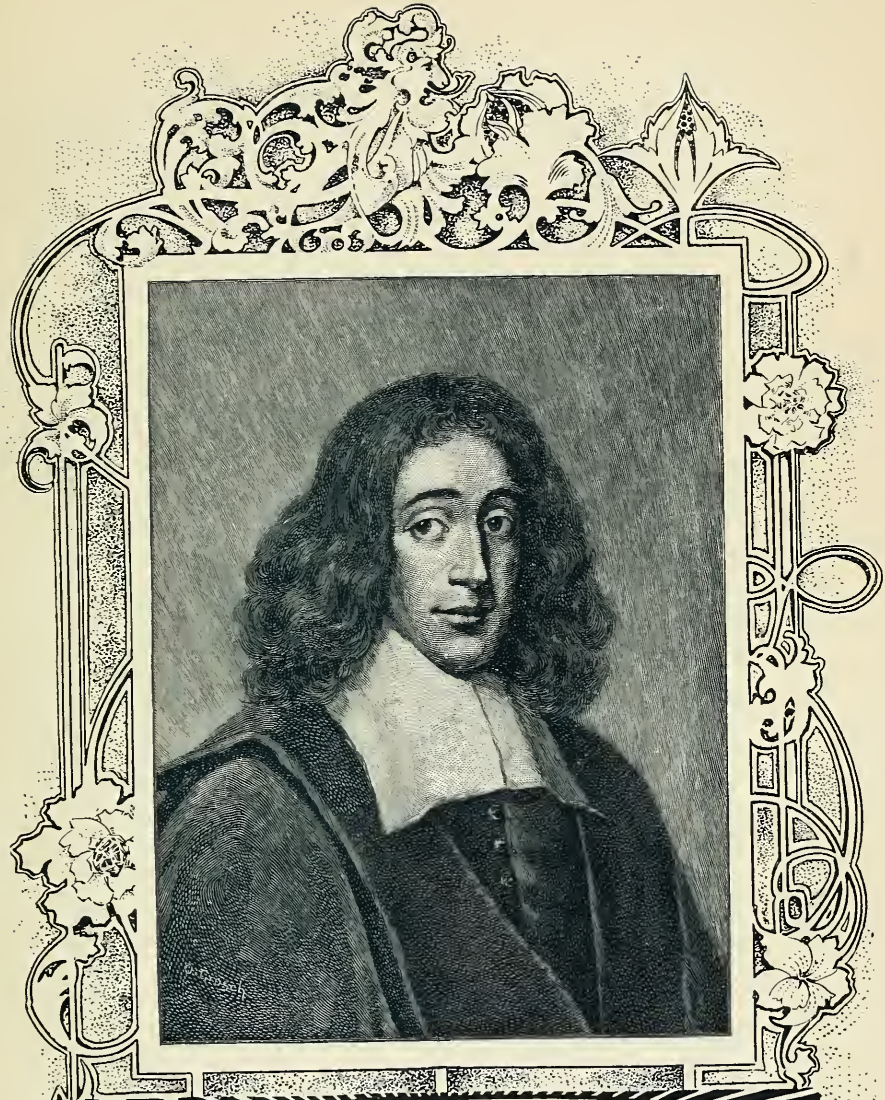
SPINOZA

Baruch, or Benedict, Spinoza was born at Amsterdam on November 24, 1632. As a child he was very weak and sickly, and it was for this reason, perhaps, that he felt more inclined to thought and study than most of the young boys with whom he was bred in school. His parents were deeply religious Jews, who had left their native Portugal to take up their residence in the city of Amsterdam, where his father was successful as a merchant. Noting that their sickly boy was given to thought and to books, they sent him to the best masters of their faith in Holland.

The reader will have observed that all the great philosophers we have thus far considered, with one or two exceptions, dissented from the teachings of their religious sects or of their philosophical schools, and the reason for this will be readily seen in that it was the very fact of such dissension, necessary as it was for any degree of originality, wherein their greatness as philosophers was constituted. Spinoza was no exception to the rule. He was a Jew. The Jews have not been distinguished for their philosophers, and we may say without any fear of controversy that Spinoza was the greatest of all Jews as a speculative thinker. Spinoza's system is easy to understand, and his writings are quite short, but it is not in his philosophy that we shall find most of the interest which clings to his great name as much as in the human romance of his life.

His father, living in the most commercial of commercial nations, early designed that the young Benedict should succeed him in trade, but the avidity with which the pale boy read books and sought for knowledge of a kind that had little to do with the business affairs of life, changed the paternal intention from one of making the son an accumulator of wealth to one of making him a Rabbi of the Jewish religion. To this end he was placed in the hands of Morteira, the chief Rabbi of the Synagogue, who undertook to instruct the brilliant and intellectual boy in the mysteries of the Talmud, in the law, and in the prophets. So readily did Spinoza master matters which had taken years for other men to understand that the chief Rabbi and the other teachers of the child were amazed at his precocity and quickness. It is said that at fourteen Spinoza had become so versed in biblical knowledge and history and in the comprehension of the profound theology of the Synagogue, that his masters declared that he had no more to learn. At this tender age the pupil excited the jealousy and hate of the doctors who had been his teachers. These passions were heightened by the fact that Spinoza, not satisfied with equaling the Rabbis in their knowledge of the Scriptures, was prone to thrust the superiority of his intellect before them by asking them questions which they could not answer. He was particularly pressing upon them in the matter of the immortality of the soul. He asked them why it was that there was no mention of this matter in the Old Testament. They had given him the Old Testament as the religious staple. He could find nothing in that book from which he could, either directly or indirectly, draw any conclusion but the one involved in the doctrine of the Sadducees, i. e., that when man's body was dead man no longer existed.

Besides this, Spinoza's questions to his masters disclosed a tendency toward opinions which were anything



BARUCH SPINOZA

Attributed to Frans. Hals, in the Ducal Library of Wolfenbüttel, Germany.

but orthodox from the Jewish theological standpoint. Taking the Bible for his text, the embryo philosopher confronted his elders with objections, difficulties, and dilemmas which they found it impossible for their wit or their sophistries to explain away. From these disputations young Benedict always emerged with the laurel of victory upon his pale brow. The Rabbis found that they had placed an intellectual weapon in the hands of their pupil with which he turned upon them and slew them. It was evident that something must be done to bring this young heretic to his reason or to his senses. When honeyed words, exhortations, appeals to his pride in the antiquity of his race and its ancient faith, and high-sounding hopes for the future of his sacerdotal career failed to make the least impression on his mind, but seemed only to spur his intellect to greater activity and more searching analysis, the learned doctors decided to try what could be done by fright and force. They threatened him with excommunication. They told him they would expel him from the Synagogue; cast him out from the congregation of the faithful. We can imagine the delicate boy confronting the fierce visages and the excited and angry gestures of his superiors with calm, unmoved face, unwavering eye, and intolerable scorn. By their cajoleries and flatteries he was as unmoved as a statue of marble. To their threats and imprecations his only answer was a placid smile.

What could be done with such an impious and unreasonable, even stubborn, subject as this? Remember that we are now dealing with the Synagogue of Amsterdam and not with the holy inquisition. Spinoza was a Jew. His heresies were to be dealt with by the Jews themselves; and the Jews themselves were by no means pleasing to the courts and powers in whose charge was the religious integrity of Europe. It was decided when all other means failed that Spinoza should be punished by excommunication. The chief Rabbi himself, finding that his persuasions had no more effect upon the young rebel than had those of the sub-doctors, told Spinoza to prepare himself for the awful ceremony that accompanied the casting out of the unfaithful one from the congregation. So coolly did Spinoza hear the terrible words which Morteira thundered above his head that the Rabbi left him in a rage.

But the boy philosopher was before with his persecutors. He withdrew from the Synagogue of his own accord and took up his residence with Dr. Francis Van den Ende, a learned Dutchman who maintained a high-class school in Amsterdam for the education of the sons of the wealthy Dutch. Before the terrible day of excommunication arrived the chief Rabbi sent emissaries to young Spinoza and made him an offer of an annual income consisting of a very large sum of money on condition that he would return to his people and become a Rabbi. This offer was rejected with such emphasis as only served to further embitter the hate that already swelled in the hearts of his enemies. The Synagogue had no power to burn the heretic at the stake, and the mere matter of excommunication, black as was the ceremonial, was in nowise calculated to satisfy the offense to the doctors, which was none less than mortal. One evening when Spinoza was returning to the house of his friend he was fallen upon by an assassin (no hired one, we may fancy), but he saw the glitter of the knife as it was descending toward his heart in time to grapple with his murderous assailant and thus escaped. The knife rent his coat, but did not otherwise harm him. In a few days the doctors assembled for the awful rite of the excommunication. With fierce curses, shrill anathemas, solemn opening and shutting of books, lighting and extinguishment of black wax candles, waving of hands, bowing of heads, loud trumpetings, dolorous chantations, and terrible amens, the lost one was forever cut off from the God of his fathers and the congregation of his people. Spinoza was now free.

The young Jew, who had been warmly welcomed by Dr. Van den Ende, now gave himself up to the study of Latin—a study he pursued under the direction of his new master's daughter, a cultured Dutch girl. She was not a handsome woman, but that the pupil should have fallen in love with his teacher is not hard to imagine. He made rapid progress under her tuition, and repaid Dr. Van den Ende for his board and lodging by teaching in the doctor's academy. Although not informed in the classics, Spinoza was fluent in German, Hebrew, and Spanish, and as these were no mean graces, he amply repaid his patron and friend for the harbor that was found under his roof. His life while at the house of the Dutch educator was of unalloyed joy, broken only by another attempt of his enemies to kill him. If he had not to suffer from the persecutions of the Church it will thus be seen that he was not altogether exempt from the penalty which is paid by original minds at all times.

The romance of Spinoza's life had been complete had his love affair prospered, but his fair tutor was not to be blamed if she did not return his affection. It must be remembered that he was quite young and was not physically strong. Then, too, he had a powerful rival in a rich young German merchant. His teacher and sweetheart married this man and her pupil determined to give himself up to philosophy, and to no longer hope to be as other men. He left the Van den Ende house determined to earn his own living, and to be independent of friends and patrons. He sought and found occupation as a grinder of glass lenses—a trade at which his slight physical strength enabled him to work. His pay was small, but it was sufficient for his simple wants, and gave him the means to study philosophy.

In 1661 the enmity he had aroused among the Jews by his apostasy once more manifested itself in an alarming manner, and Spinoza left Amsterdam and removed to the village of Rhynsburg. There, for four years, he worked at his trade and read the philosophers, especially Giordano Bruno and Descartes. From these two men he derived his system, which is not, however, copied from either. As the system developed in his mind he disclosed it to a few prudent friends, who were struck with its beauty and its depth, and his fame began to spread. In 1664 Jan de Witt, the statesman, invited him to The Hague and gave him a small pension which enabled him to pursue his work and his studies with more assiduity. For a time he lived in a hotel kept by a widow in Voorburg, but soon took up his residence with the painter Van Spyck, with whom and whose wife he spent the remaining years of his life. He had already written his abridgement of the *Meditations* of Descartes with an appendix in which is found the germ of his own system. This book had made a fine impression, and its author was tendered the chair of philosophy at Heidelberg by Karl Ludwig. Had he accepted this generous offer he might have been at ease for the remainder of his days, but he was a most conscientious man, and plainly informed the university that he could not consistently teach there without permitting his views to clash with established opinions. He therefore declined the offer and continued to work alone. King Louis XIV offered him a liberal pension if he would dedicate his next work to that monarch. This offer the philosopher likewise declined on the ground that he had no intention or desire of seeking the favor of Kings.

These refusals of Spinoza to permit himself to be influenced in any manner by the patronage of royal personages were due more to principle than to the outward reasons he gave for them. He was never able to forget the treatment he had received as a boy in the Synagogue, and it was not his intention to place himself in the power of anyone thereafter. He held that government should not establish schools or interfere in any way with education or educators. He said that the only atmosphere in which genius and the sciences could flourish was one in which individuals should be perfectly free to think and to teach just what they thought right, and to take all the risks and perils upon themselves. He did not accept professorships or emoluments from the hands of the powerful. He rather labored with his own hands for his bread, and he also had the sweet consolation of knowing that no thought of dependence restrained him from writing and teaching those things which he honestly believed to be the truth.

On February 21, 1677, Spinoza died at the house of his friend Van Spyck. He was forty-five years old, and was a victim of consumption, from which he had suffered from his childhood. After his death was found a ledger in which he kept his accounts. Herein were entries of three and four cents for expenses of the simplest character. In view of what he had suffered as a boy, of the persecutions that had followed his youth and his young manhood, and of the great work he had wrought out during those years of labor in the factory and in the study, that little ledger is the most pathetic document the imagination can well picture.

Of his personal disposition nothing has been said but good. He was as gentle as a woman, kind, tender, sympathetic, loving, holding in his weak body a courage that was undaunted even before the threats of a mob. He had no love of money whatever, and did not value it even for what it could buy for him, much as he felt the need of leisure and books for the working out of his beloved system. The one object which was ever before him was the finding out of truth, whatever it might be, and he was convinced that that inquiry could only be deterred by the acceptance of favors from persons with whose peculiar notions and beliefs his own discoveries or conclusions might not agree. It is possible that Spinoza erred in this. It is possible that heresies would be tolerated from him where they would plunge others into disaster. He was a Jew. He had been cast out and cursed by his people; and even though Christian doctors might not at all agree with his teachings they would hardly do more than amicably controvert them. This disposition was seen in the offer from Heidelberg. But Spinoza's mind was warped in this direction, and with good cause. One excommunication and several attempts at assassination were enough for him. Henceforth he would be free to think as he pleased, and be accountable to no power higher than his own conscience.

It is amazing how few of the continental philosophers have escaped the *odium theologicum*. Almost all were accused of atheism. No one *now* charges Locke and Hobbes and Berkeley with atheism, and the worst that is *now* said of Spinoza is that he was a pantheist. But perhaps of all the philosophers—not even excepting Bruno—the Jew of Amsterdam has been most venomously abused for atheism, because, it may be, he deserved it least of all. In all the wide range of letters there is no more deeply religious writer than Spinoza. Religion with him—he was Semite—rose to a passion. He could see God in all things. He could conceive of no existence apart from God. If to say that God is All and that All is God be *atheism*, that word has come, then, to be an empty sound. It has been contended by some eminent Christian writers that Spinoza was not an atheist even in being what is vulgarly called a pantheist.

All that is, teaches Spinoza, exists only in and through itself. Substance is eternal; it exists from the sole necessity of its very nature, and acts from itself alone. It is infinite, unconditioned, one, and indivisible. By its attributes it becomes known. It is God. God is identical with Nature, and Nature is to God as is effect to cause, but Nature does not follow after God, for cause and effect coexist. Nature is identical with God because Nature and all things are only modes or modifications of God.

"By substance," he says in his definitions, "I understand that which exists in itself, and is conceived *per se;* that is, the conception of which does not require the conception of anything else antecedent to it.

"By modes I understand the accidents (properties) of substance, or that which is in something else through which also it is conceived.

"By God I understand the Being absolutely infinite; that is, the substance consisting of infinite attributes each of which expresses an infinite and eternal essence.

"By eternity I understand existence itself in as far as it is conceived necessarily to follow from the sole definition of an eternal thing."

Spinoza adopts the mathematical method of reasoning. After his "definitions" come "axioms" and then "propositions" which he proceeds to "demonstrate." Thus he constructs a "system" the machinery of which is totally useless for the purpose he seeks; for Spinoza seeks the same purpose as do all philosophers, namely, the demonstration of that which, in its very nature, can never be demonstrated. His philosophy, notwithstanding the formidable terms he uses, and in spite of the mathematical rigor he tries to throw around it, is, after all, only an emotional religion. He is at heart a poet, and his philosophy is the philosophy of Shelley, Wordsworth, and Byron. Pope, in his *Essay on Man*, defines this poetic philosophy in the oft quoted lines concerning Nature as "body" and God as "soul," and numerous other poets have spontaneously uttered the same thought. Written into a poem, Spinoza's philosophy would find its most facile expression; and its practical value, if of practical value it can be said to possess any whatever, would be thereby immeasurably enhanced.

BERKELEY AND HUME

To be sneered at by the unthinking is frequently the lot of greatness. Measured by that standard George Berkeley is truly great. The mind of the profound English bishop has been made the butt of ridicule for more than one hundred and fifty years. Now and then some more solemn-visaged ignoramus has shaken his head severely and has proclaimed that the good churchman of Cloyne is not only foolish but dangerous, that his doctrines lead to the inevitable *atheism.* To this we can reply, borrowing Mr. Lewes' happy question: Lead whom?

All the pantheism of Bruno and Spinoza, all the materialism of Locke and Hobbes, did never so much to startle and alarm the rutted minds of Europe as did the *Idealism* of Berkeley. Of course, those who most roundly condemned him did not understand him. Those who ridiculed him were the intellectual gnats of the time. Alexander Pope, who has left more epigrams that are popularly quoted than any other writer except Shakespeare, disposed of Berkeley's light-witted critics in his famous line—

> And coxcombs vanquish Berkeley with a grin.

Pope's category of coxcombs includes a few college professors who seemed to have been overwrought by the good bishop's originality and daring, but who could not be satisfied with grinning at him. They tried to maltreat the corpse by hacking it to pieces. Berkeley was the natural successor to John Locke. He took up philosophy where Locke left it and carried it one step farther, but that step was the last which philosophy, properly so called, could take. Those who followed Berkeley all went backwards with one exception—Hume. He did not advance, it is true, but, taking up Berkeley's conclusions, he proved that philosophy was an idle pursuit; that it led to no knowledge; that it left men plunged in the darkness of doubt, and that as a means of widening knowledge it was an instrument of no utility whatever.

Berkeley was a generous and unselfish man who sought to devote the activities of his life to the good of others. He was a clergyman who had the highest conceptions of his office and the noblest ideals. His life was spotless. His reputation for virtue was widespread. Men who once met him immediately became his eulogists. The impression he made upon all was that of a supremely *good man.* The most extravagant anticipations were thus raised in the minds of persons who were about to be brought into contact with him. But these anticipations were all disappointed. Berkeley was *not* like what they had conceived him to be. He was *better.* Atterbury said of him: "So much learning, so much knowledge, so much innocence, and such humility, I did not think had been the portion of any but angels, till I saw this gentleman;" and Pope, in describing the praise or censure given to men, says that the fashion was to ascribe "to Berkeley every virtue under heaven."

The bishop, although native to Kilkenny, Ireland, was derived from English parents. He was born on March 12, 1684, and as a boy evinced that inquisitiveness and acuteness of mind which were afterward to give him his place beside the great philosophers of the world. It is said that while he was yet a mere lad he displayed a fondness for dealing with pure ideas—a trait that is always regarded as one of unusual and extreme precocity and which presages much for the youth who possesses it. He was a keen admirer of nature and a slow observer by no means. He saw things in detail concerning natural phenomena which his elders passed by unnoticed. He was not struck with those things that attracted general attention and which were open to all who had eyes and which could not help being seen; but was ever astonishing his friends by calling their attention to aspects of things which were remarkable enough when observed, but which had not been found until he found them.

Berkeley entered Trinity College, Dublin University, at the very early age of fourteen and took his degree of Bachelor of Arts at eighteen. Two years later he was given his degree of Master, and in 1707 he was made a fellow of Trinity and became a docent in Greek and a tutor. While in college he was, as might have been expected, intensely interested in philosophy and metaphysics, and was superbly equipped for the study of these branches. There was no lack of contemporaneous literature on the subject. He had the writings of Descartes, of Locke, of Malebranche, the French priest-pantheist; of Spinoza, and of a host of smaller speculators to dwell upon. He was also taken up with the study of Newton, and while at Trinity he conceived the idea of thinking out some original metaphysical plan of his own which should be an improvement upon those of the men who had preceded him. His principal works were published soon after he left Trinity. *An Essay Toward a New Theory of Vision* appeared in 1709, *The Principles of Human Knowledge* in 1710, and *Hylas and Philonous* in 1713.

In the last named year Berkeley went to London.

There he lived for ten years in the association of some of the greatest men of English letters and statesmanship, and he won them all by his great learning, his piety, his courtesy, his benevolence, and by a humility which, in consideration of his intellect, was perfectly captivating. What advantage the uncultured Pope gained from converse with Berkeley's richly stored and fertile mind who can say? Addison was fond of him, Steele loved him, Swift could find nothing in him which could be made the target of his satire, and others as noted as any of these admired him with a spontaneity that was an unerring sign of Berkeley's grand and good qualities as man and scholar. While in London the philosopher wrote for various periodical publications—and these were overnumerous at that time—and serenely pursued his profound speculations undisturbed by the gay, even riotous, life of the town.

Among the eminent politicians the philosopher met and conquered in London was the Earl of Peterborough, who made him his chaplain. The Earl afterward appointed Berkeley his secretary, and the clergyman accompanied the statesman when the latter undertook a mission to Sicily. The experience of a continental tour was gained by Berkeley when he went abroad as a friend of the wealthy Ashe. At Paris the English divine met the French divine and philosopher, Malebranche, and these two are said to have had a most interesting discussion concerning Berkeley's ideal theory.

In 1724 Berkeley conceived a plan of founding a great university in America for the education of the English-speaking youth of the colonies. The scheme was proposed in Parliament and met with apparent favor. So much so, in fact, that Berkeley resigned his post as Dean of Derry, to which he had been appointed, to undertake the work. He sailed to America, on a small allowance. Three years he spent in Rhode Island with his wife, awaiting action by Parliament. But legislatures are not always to be counted upon, and Parliament failed to appropriate the funds for the design. Had it not failed America might to-day have had one more great school—and that with Berkeley as founder. Altogether Berkeley remained in the colonies seven years. He had already spent his entire savings in the attempt, and, finding that it was hopeless to wait for Parliament to act, he returned to England a poor man. Three years later he was elevated to the bishopric of Cloyne. In 1753 he died suddenly of paralysis of the heart. He had gone the year previously to Oxford to visit his son and there he was seized with his last illness. He passed away at the ripe old age of sixty-eight, after a life well spent in good deeds and kind offices for his fellowman.

Few doctrines of metaphysics have been more fully discussed than the idealism of Berkeley. It is popularly supposed that the English philosopher denied the existence of matter as Locke denied the existence of ideas apart from matter. It is true that idealism and materialism are antithetical. The second, in its purest form—and there have been very few pure materialists—teaches that nothing exists but matter, that thought itself is only the functioning of the brain and that when the brain ceases to preserve the form of matter suited to that function the mind disappears. This tenet involves the reality of matter and holds that matter, indeed, is the only true reality. It holds that ideas all spring from the sense, and that while ideas may not be *like* the external material things (the non-ego which is perceived by the ego) that cause them, they are yet material effects of material causes. What is the nature of that matter which thus underlies ideas, sensations, and thought, the materialist says he does not know.

Idealism, on the other hand, teaches the very reverse of this. It asserts that ideas themselves are the only true reality, and that matter does not exist at all. The idealism of the Germans must not be confounded with that of Berkeley. The good bishop did not go as far as the Absolutists. He took Locke's philosophy as his starting point and developed it.

Locke had said that all ideas spring from the senses which come into contact with external matter, but that these ideas give us no clue as to the nature of the things perceived. You see a chair. The chair exists truly, says Locke, but exists *only in the brain as an idea*. So far as the mind's knowledge of the *reality* behind that idea is concerned, that reality may as well not exist at all. The chair, *as a chair*, exists only in the mind. The *unknown reality* that causes the sensation or idea we call a chair, is matter.

Berkeley took issue with this. He rejected the unknown reality. If you say that the things which my senses perceive are matter, he argues, then I am ready to admit that matter exists. But if you say that these things do not exist except as ideas in the mind and that matter is the something real underlying them, and causing them, then I say, there is no such thing as matter.

It is odd that there is not one uncultured person in a thousand who will not agree readily with Berkeley's position. The ordinary man when told that the tree or the table he is looking at does not exist *as he sees it* except as a sensation in the brain, will put aside the person who makes such an assertion as insane. No amount of logic or elucidation can remove from his mind the conviction that tree and table exist precisely as he sees them and that they would continue to so exist were he removed a thousand miles from them. Tell him that were brain destroyed tree and table, as such, would vanish and he will smile at your imbecility. Say to him that what he calls a tree is a sensation the integral parts of which are all in his mind, that neither roundness nor greenness, neither trunk nor branches abide in any manner save in his brain, and he will dismiss you as one on whom it would be useless to waste time. Yet this is what the materialists will tell him, and Berkeley agrees with the ordinary man.

Let us hear him: "I do not argue," he says, "against the existence of anything that we can comprehend either by sensation or by reflection. That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence I deny is that which the philosophers call matter, or corporeal substance. And in doing this there is no damage done to the rest of mankind, who, I dare say, will never miss it. . . . That what I see, hear, and feel doth exist—that is, is perceived by me—I no more doubt than I do of my own being; but I do not see how the testimony of sense can be alleged as a proof of anything which is not perceived by sense."

This is certainly plain enough, and one who is not accustomed to the refinements of metaphysicians will marvel why it should require a Berkeley or anyone else to say it. But there is a little more in Berkeley than would appear at a casual glance. Thus far his idealism seems to be nothing but what the common sense of all mankind will assent to. However, it should not be forgotten that "the only thing whose existence he denies is that which the philosophers call matter." In this, too, common sense might agree with him.

It is not so easy for common sense to go with Berkeley when he says that the very perception of things *is* their existence; that things which are not perceived *do not exist.* This was the position which drew upon the head of the good man the contumely of all, from the professor in the chair to the coxcomb in the drawing-room.

Let us hear Berkeley again: "Some truths are so near and obvious to the mind that a man need only open his eyes to see them. Such I take this important one to be, namely, that all the choir of heaven and furniture of earth—in a word, all those bodies which compose the mighty frame of the world—have not any substance without (outside of) a mind; that their *being is to be perceived or known;* that consequently, *so long as they are not actually perceived by me*, or do not exist in my mind or that of any other created spirit they must have no existence at all or else subsist in the mind of some eternal spirit, it being perfectly unintelligible, and involving all the absurdity of abstraction, to attribute to any single part of them an existence independent of a spirit (mind)."

Here, indeed, common sense at once takes its departure from Berkeley. The materialist only asks common sense to agree that the tree does not exist *as a tree* (round, green, foliated,) except in the mind. He will admit that the reality underlying these phenomena (matter) *does* exist independent of the mind. Berkeley denies that *reality* exists in any manner whatever save as an idea in the mind itself.

One objection to this view at once suggests itself, but Berkeley is before his critic and anticipates him. He says: "But, you say, there is nothing easier than for me to imagine trees in a park, or books in a closet, and nobody by to perceive them. I answer, you may so; there is no difficulty in it. But what is all this, I beseech you, more than *framing in your mind* certain ideas and at the same time *omitting* to frame the idea of *anyone perceiving them?* But do not *you yourself* perceive or think of them all the while? This, therefore, is nothing to the purpose. It only shows that you have the power of imagining or framing ideas in your mind, but it does not show that you can conceive it possible that the objects of your thought may exist without the mind. To make out this it is necessary that you conceive them existing unperceived, or unthought of, which is a manifest repugnancy. When we do our utmost to conceive the existence of external bodies we are all the while only contemplating our own ideas."

This, then, is clear: Berkeley denies the existence of anything but ideas; or, as it has been said, he identifies objects with ideas. He considers the points presented by Locke in his philosophy and easily refutes all those with which he does not agree, and these are not many. Starting out with the experiences that are the common lot of all men, he reasoned his way from the data thus obtained to the impregnable position in which he entrenched himself at the end. His arguments have never been answered nor can they be answered. In the realm of metaphysics Berkeley was without a peer up to his time, unless we exempt Gautama, who carried philosophy even farther and who held that even *ideas* do not exist. Berkeley did not know of the Buddhistic philosophy, and was a great original. He was the last of the metaphysicians that held with faith to metaphysics, who can be called really great, if we except the

Germans, for he summed up in his thought all that it was possible for metaphysics to do. He himself realized that nothing more could be said upon the subject, but he did not realize that by forging his system of idealism on philosophy he left philosophy forever helpless to move. With her hands locked in the chains of materialism and idealism, both riveted so securely as never to be broken, philosophy was at the end of her mission.

HUME

David Hume was the subtlest metaphysician of England. The leading principle of his psychology is accepted and taught to-day by all advanced writers in that field. Human thought since his time has not been competent to improve upon his two categories—*impressions* and *ideas*—to which he reduced all sensation. These terms were first used by him and all psychologists tacitly credit him with the classification.

But Hume was not only England's subtlest metaphysician. He was likewise one of the great originals in political economy. Adam Smith, to whom is universally conceded the honor of being the founder of that science, built his system on the principle first announced by Hume—that "everything in the world is purchased by labor, and our passions are the only causes of labor." Philosopher and economist, Hume was likewise an historian whose works rank beside the best works of history extant.

In the matter of popular fame Hume stands first as the historian. Yet the time must come, if it have not come already, when his greatest service will be admitted to be that service he did for thought when he showed beyond cavil or controversy that man, by the effort of pure thought alone, using metaphysics as the instrument, could never win a knowledge of his own mind that could in any manner advance his well being.

Hume must ever remain the great Skeptic; the sole master of the philosophical arena; the unanswerable iconoclast; the incomparable theorist of causation. He applied the Baconian method to metaphysics with the only possible result, namely, that metaphysics itself is lost.

Of his early life there seems to be much that is not known. He had little schooling. His college training was limited to one term at the University of Edinburgh. He was born in the Scotch capital April 26, 1711, and died there on August 25, 1776. The Humes were of noble blood, and belonged to the famous family of Douglas. But David's father was poor, and died when the philosopher was a child. David's mother had not much faith in the capacity of her son. She said of him that he was a very kind and good-natured creature, but pitiably weak in mind!

This judgment was possibly founded upon what seemed good evidence, for we find Hume as a mere lad reduced to a condition bordering upon prostration with the conflict of his thoughts upon metaphysical subjects. Before he was twenty he had thought out, in the main, the system which he left, and was already at work upon that masterpiece of metaphysical literature, his *Treatise of Human Nature*. That work was published when its author was only twenty-eight, and although he lived to produce numerous works in the same line, he did not once alter the conclusions he had arrived at in the *Treatise*.

In a letter which he wrote to a friend describing the condition of mind that had led him into the pursuit of philosophy, he says:

"Everyone who is acquainted with the philosophers or with the critics knows that there is nothing yet established in either of these two sciences, and that they contain little more than endless disputes even in the most fundamental articles. Upon examination of these I found a certain boldness of temper growing on me, which was not inclined to submit to any authority on these subjects, but led me to seek out some new medium by which truth might be established. After much study and reflection on this, at last, when I was about eighteen years of age, there seemed to be opened up to me a new scene of thought, which transported me beyond measure, and made me, with an ardor natural to young men, throw up every other pleasure or business, to apply entirely to it."

He had been designed for a lawyer, but the study of law was irksome. So, too, was his first and only attempt to engage in commerce. He had gone to Bristol and had there made a dismal failure as a clerk. How long the unpleasant association with Bristol clung to him is evident from this sentence in his history referring to the fanatic Nayler, who tried to imitate the Savior: "He entered Bristol mounted on a horse—I suppose from the difficulty in that place of finding an ass."

Disappointed in law and in commerce, broken in spirits and in health, with the weight of his developing system on his mind, young Hume went abroad for rest. He spent three years in France, principally at Rheims, doing nothing, in order, as he explained, that he might be able to work with more zeal at a later time.

While in France he visited the Jesuit College at La Flèche, and found much pleasure in the intellectual atmosphere of the great school wherein was educated René Descartes. Even while he rested from labor he was not idle, and he thought much on his book and wrote much. In 1839 the *Treatise* was ready for publication, and we find Hume in London dealing with publishers and preparing himself for his debut in literature and philosophy.

So little did the work appeal to the publisher that he paid the author only $250 for the two first volumes. Hume's anticipations of success were immeasurably beyond his realization. The *Treatise* was published and fell flat. Here was a book in which was defined every principle upon which the French Revolution was founded, in which every opinion and every authority that had ever been held in respect was set at defiance; in which every existing system of thought was overturned; in which the very citadel of human certainty was stormed and taken—and yet it fell into oblivion from the printer's press.

The bitter disappointment Hume suffered in this is well described by himself. It was only after he had attracted attention by his other works that the philosophers began to read the *Treatise*, and then it was that Hume reaped the full reward of his genius and originality.

For two thousand years the word Skepticism had never been used but to provoke a smile. To confess oneself a Skeptic was equivalent to affecting some outrageous fashion of dress. The avowed Skeptic was at once challenged with the old arguments against Pyrrho. He was asked derisively why he insisted on dining when he could not be sure that his dinner was really on the table before him. He was tolerated as an aberration, humored by his friends, and scouted by his critics. No one took him seriously. The Skeptic in modern times was regarded with the same sort of humor as would be one who would seriously propose an honest faith in the extinct gods of Olympus. He was either trifling or he was mad.

When Hume's *Treatise* began to be read widely all this was changed. Skepticism assumed an important and commanding position in the domain of modern philosophy. It was no longer enough to laugh at the Skeptic. You must answer him, and answer you could not. The *Treatise* was a literary and metaphysical masterpiece behind which was a force which stunned the deepest thinkers and brought the most confident plodders to a dead stop.

After the shock was over men raged and stamped their feet and denounced the logic of the incomparable author as the height of folly or the viciousness of a monster. The *Treatise* smiled at them and placidly replied, "Answer me." Theorists of all the schools attacked the book and fretted and put themselves out of breath and lacerated their minds against the sharp prongs that stood out from its pages, and then, quite worn out, fell back and said, "The man's a fool!" But the book stood.

The Skepticism of Pyrrho, the Greek, was one thing. It was dismissed as the idle affectation of a pagan. The Skepticism of Hume left its opponent and critic stripped bare without a single weapon of attack. So long as men remained in the arena of the intellect and fought with intellectual instruments this modern Skepticism laid all the champions at its feet. To combat it philosophers were forced to abandon the realm of philosophy and to appeal frantically to the passer by. And when they did *that* they left Hume the triumphant master of the situation.

It was no more mere sophistry, no trick of logic, no common man who could do all this. Berkeley had amazed and startled the world with his ingenious and his unanswerable argument whereby he challenged men to show him that the whole moving, visible, tangible world was not a mere state of mind, had no existence beyond the intellect that perceived it. Hume left Berkeley where Berkeley left others. Hume is the one man in the history of philosophy who is alone an unapproachable Skeptic. But he is not the Skeptic that he is popularly supposed to be. He did *not* doubt that fire burned him, and that his thirst was quenched with water.

The third volume of the *Treatise* was published in 1740, and in the following year he brought out his essays. In these we find the Skeptic discussing the liberty of the press, party politics, and other questions of vital interest to the every-day world. On two occasions Hume attempted to secure the post of professor of philosophy in Scotch universities and failed in both. In 1776 he entered the diplomatic service, and was secretary to General St. Clair, the then Ambassador to Turin and Vienna. From 1763 to 1766 he was Secretary of the Embassy to Paris, and was later Under-Secretary for State. His success in politics was not despicable, but he was never the practical politician. Through his books and political offices he acquired a fortune of no mean dimensions, and toward the close of his life it was observed that his spirits were ever gay and light. This gayety seemed to increase just before his death. He who had been torn in his youth by mental upheavals, prostrated by the battle of his own thoughts, was calm and at peace in his old age. Strange is the way of fact. The unapproachable Skeptic died "happy."

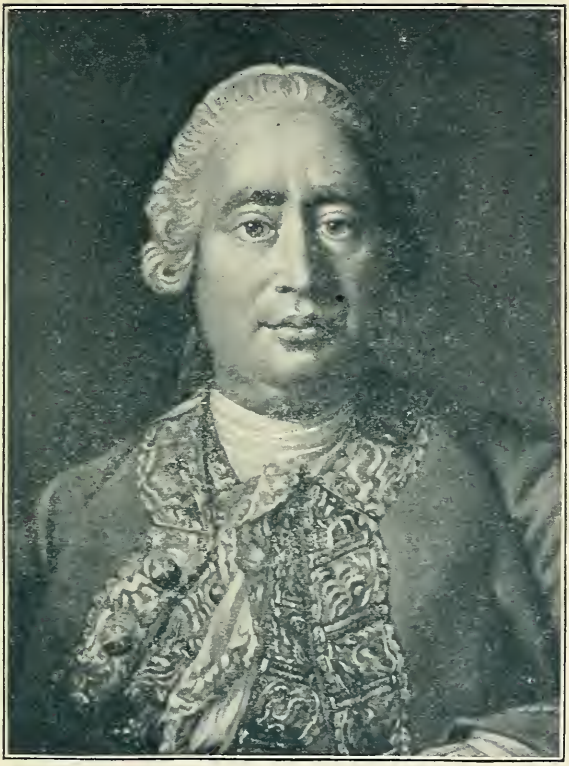
What is the Skepticism of Hume which has been pronounced impregnable by men of the most diverse habits of thought?

As we have said, Hume used the Baconian method rigorously. He would trust to experience only. What, now, does experience teach us? The closest analysis will show us that all the contents of the mind may be divided into two classes of experiences: Perceptions that are forcible and strike in upon the senses as from contact with external things, and perceptions that are faint which are made up of internal representations of the original perceptions of sense. The first he calls "impressions," the second, "ideas."

We see a man, taste an apple, hear a bell. The seeing, tasting and hearing are impressions. We draw a mental picture of the man, represent to the mind (remember) the taste of the apple, and recall the sound of the bell. These mental representations of thing, taste, and sound, are ideas. Thus, in the words of Hume, "*ideas are impressions returning upon the soul.*" The idea that corresponds to a pure impression is a pure idea. It is an idea of memory. But when these pure impressions are mentally compounded they are ideas of the imagination. The whole content of the mind is made up, therefore, of nothing but impressions and ideas. But Hume went farther than this: The mind itself—what is it but a bundle of those impressions and ideas?

Berkeley had denied the existence of matter—the unknown reality underlying the phenomena of sense. Hume denied the existence of mind itself—the unknown reality which was supposed to be the seat of perception and idea. This doctrine is now so commonplace, so familiar to every student of psychology, that its repetition serves to do no more than remind us of text books. But in Hume's day it was perfectly new, and startling to the highest degree.

He who would say, "There is no such thing as mind;



DAVID HUME

Painting by A. Ramsay

it does not exist," might be passed by as a madman. But he who could assert this thing and offer unanswerable arguments to prove his position was indeed an innovator. The very subtlety and depth of Hume's doctrine were calculated to elude, for a time, the understanding of the philosophers. When, at last, he was understood, and the tremendous importance of his position realized, it is not surprising that men were shocked. Observe well what Hume teaches: The *mind*, as an entity apart from impressions and ideas, has no existence whatever. It is not a separate something *upon which* impressions are made and in which ideas subsist and dwell. Take away sensation, take away ideas or memory, and mind vanishes. It is as the light of a lamp. Destroy the wick and the oil, and the flame—where is it? In other words, the constituents of the mind are nothing but the mind itself.

Berkeley had said, If you contend that the very things I see and feel are themselves matter, then I agree that matter exists. If you say that matter is not these things, but something I do not and cannot know, then I deny that matter exists. Hume said, If you say that these impressions of sense and their corresponding representations, or ideas, are themselves mind, then I admit that mind exists. But if you say that the mind is something apart from these impressions and ideas—the something which is the *subject* that is impressed—then I deny that mind exists. If the materialists could not *prove* that matter existed—and they readily admitted they could not—no more could the idealists demonstrate the existence of the mind.

The position of Hume is no more and no less than the position of the so-called Agnostic. And perhaps that is why we find the founder of Agnosticism and the inventor of the word itself, Professor Huxley, admiring Hume and writing the philosopher's life. The position of the Agnostic and the position of the Skeptic are really one. This, be it understood, does not concern matters of faith. Skepticism, Agnosticism, concern themselves only with philosophy. When we come to treat of Herbert Spencer we will go more fully into the question of Agnosticism. We can dismiss the subject here by saying that Science knows neither Agnostic nor Skeptic. And the reader will be prepared for the force of this assertion when he remembers the clear distinction we have been at pains to draw and insist upon as existing between science and philosophy.

Hume, then, taught, not that the mind does not exist, but that if there is any valid reason for rejecting the existence of matter, there is equally valid reason for rejecting the existence of mind. If you cannot prove matter, he says, no more can you prove mind. There is as much reason for doubting the existence of the one as there is reason for doubting the existence of the other. And in this statement is described his celebrated Skepticism.

Is there an answer to Hume's logic? If we meet him upon his own ground and remain with him in the realm of pure metaphysics, it must be confessed that there is no answer. Metaphysics is powerless. But if we take another view, there *is* an answer, and an overwhelming one. It is the universal testimony of mankind. No one truly doubts that the things he sees, hears, feels, smells, tastes, and touches, really do exist and abide as entities outside of him and quite independent of his thought. No one doubts that he truly feels all these sensations, and that he himself and his thoughts are apart from the things without him. In other words, the *ego* and the *non-ego,* the *me* and the *not-me,* is the one truth upon which all men without exception agree.

But Hume anticipated all this. He did not contend that the basic consciousness of all sentient creatures was a lie. He only sought to teach men that the intricate systems of metaphysics they reared up in their self pride and their unwarranted confidence were built upon sand. He heartily and earnestly repudiated all thought of contending that the necessary and natural convictions to which every man must, perforce, assent, were false; and grave injustice has been done him by those critics who attempted to ridicule him for writing books which could not exist and partaking of the joys of a world whose reality he doubted. He doubted neither his own being nor that of the world. He distinctly asserts that he is not a total Skeptic. The total Skeptic, he says, cannot have an opponent; for who can have an opponent who is not sure not only of his opponent's existence but of his very own?

Much has been written of Hume's theory of Causation, and as the subject is one of vast interest it may be worth while to examine his opinions on this matter. Cause is a word most commonly used, and conveys a definite, distinct meaning. For example, we say a wound is *caused* by a bullet; a wreck is *caused* by a storm; a burn is *caused* by fire. But if we dive deeper into consciousness and carefully analyze the thought which clings to the word we will find, with Hume, some reason for questioning the accuracy of the common belief. In this respect, as in many others, he flies in the face of universally accepted opinions.

That which had a beginning must have had a cause. This proposition will hardly be denied by anyone. Yet Hume questions it. Why should this be true? he asks.

It is by no means certain that whatever exists must have been caused. No reason can be advanced why an object that does not now exist may not exist in a moment from now without having been produced by some power. Cause and effect are merely mental relations, no more. Experience teaches us that certain objects are invariably accompanied by certain other objects; or that certain impressions or ideas are never dissociated from certain others. He says in the *Treatise*:

"It is certain we here advance a very intelligible proposition at least, if not a true one, when we assert that after the constant conjunction of two objects, heat and flame, for instance, weight and solidity, we are determined by custom alone to expect the one from the appearance of the other. This hypothesis seems even the only one which explains the difficulty why we draw from a thousand instances an inference which we are not able to draw from one instance, that is in no respect different from them.

"Custom, then, is the great guide of human life. It is that principle alone which renders our experience useful to us, and makes us expect, for the future, a similar train of events with those which have appeared in the past.

"All belief of matter-of-fact or real existence is derived merely from some object present to the memory or senses, and a customary conjunction between that and some other object; or in other words, having found, in many instances, that any two kinds of objects, flame and heat, snow and cold, have always been conjoined together, if flame or snow be presented anew to the senses, the mind is carried by custom to expect heat or cold, and to *believe* that such a quality does exist and will discover itself upon a nearer approach. This belief is the necessary result of placing the mind in such circumstances. It is an operation of the soul, when we are so situated, as unavoidable as to feel the passion of love, when we receive benefits, or hatred, when we meet with injuries."

The comment that Hume's insistence on custom and habit is too strong seems out of place. To say that one vivid impression is sufficient to establish a certainty in the mind as to the repetition of the effect is beside the question. The difference involved is one of degree only. The less vivid the impression the more often must it be repeated before the idea of causality is established. Hume's doctrine of causation is set forth in the following paragraph from the already quoted *Treatise:*

"When any natural object or event is presented, it is impossible for us, by any sagacity or penetration, to discover, or even conjecture, without experience, what event will result from it, or to carry our foresight beyond that object, which is immediately present to the memory and senses. Even after one instance or experiment, where we have observed a particular event to follow upon another, we are not entitled to follow a general rule, or foretell what will happen in like cases; it being justly esteemed an unpardonable temerity to judge of the whole course of nature from one single experiment, however accurate or certain. But when one particular species of events has always, in all instances, been conjoined with another, we make no longer any scruple of foretelling one upon the appearance of the other, and of employing that reasoning which can alone assure us of any matter of fact or existence. We then call the one object *Cause*, the other *Effect*. We suppose that there is some connection between them—some power in the one, by which it infallibly produces the other, and operates with the greatest certainty and strongest necessity. But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar, except only, that after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. The first time a man saw the communication of motion by impulse, as by the shock of two billiard balls, he could not pronounce that the one event was *connected*, but only that it was *conjoined*, with the other. After he has observed several instances of this nature, he then pronounces them to be *connected*. What alteration has happened to give rise to this new idea of *connection?* Nothing but that he now *feels* these events to be *connected* in his imagination, and can readily foresee the existence of the one from the appearance of the other. When we say, therefore, that one object is connected with another we mean only that they have acquired a connection in our thought, and give rise to this inference, by which they become proofs of each other's existence; a conclusion which is somewhat extraordinary, but which seems founded on sufficient evidence."

Like all other philosophers, Hume wrote upon Deity, and it is interesting to note that, Skeptic though he was, he did not reject a God. Religion, he said, regarded from a philosophical point of view, was "a riddle, an enigma, an inexplicable mystery." But he believed that morally much may be said in its favor. The great Skeptic's views on miracles have been often quoted. What he has to say of the miraculous involves some misconceptions and a few contradictions. He speaks of "violating the laws of nature," as if these "laws" were anything but the observed sequence of events; as if they were something that could "operate" by some force of its own.

"Why is it," he asks, "more than probable that all men must die; that lead cannot of itself remain suspended in the air; that fire consumes wood and is extinguished by water, unless it be that these events are found agreeable to the laws of Nature, and there is required a violation of these laws, or in other words a miracle, to prevent them?"

"It is a miracle," he says elsewhere, "that a dead man should come to life; because that has never been observed in any age or country."

The miraculousness of the dead coming to life may be admitted, but Hume's reason for that miraculousness is false. That two men separated by a thousand miles should converse as if face to face would be a miracle in the Eighteenth Century according to Hume, for *that* had never been observed in any age or country up to that time. Again, when shall we say a man is dead? The question of miracles is an unsatisfactory one at best, and necessarily, from the impossibility of definition. What would be a miracle to-day is a commonplace fact to-morrow. Hume says:

"There is not to be found, in all history, any miracle attested by a sufficient number of men, of such unquestioned goodness, education, and learning, as to secure us against all delusion in themselves; of such undoubted integrity, as to place them beyond all suspicion of any design to deceive others; of such credit and reputation in the eyes of mankind, as to have a great deal to lose in case of their being detected in any falsehood; and at the same time attesting facts, performed in such a public manner, and in so celebrated part of the world, as to render the detection unavoidable. All which circumstances are requisite to give us a full assurance of the testimony of men."

But again, what is a miracle?

As to the existence of a God Hume puts into the mouth of an imaginary Epicurean arguments which have been quoted as conveying his own opinions. While the attribution may be just or not, we cannot deny to the Epicurean a degree of earnestness that smacks of something more than intellectual gymnastics. The philosopher says:

"I deny a Providence, you say, and Supreme Governor of the World, who guides the course of events, and punishes the vicious with infamy and disappointment, and rewards the virtuous with honor and success in all their undertakings. But surely I deny not the course itself of events which lies open to every one's inquiry and examination. I acknowledge that, in the present order of things, virtue is attended with more peace of mind than vice, and meets with a more favorable reception from the world. I am sensible that, according to the past experience of mankind, friendship is the chief joy of human life, and moderation the only source of tranquillity and happiness. I never balance between the virtuous and the vicious course of life; but am sensible that, to a well-disposed mind, every advantage is on the side of the former. And what can you say more, allowing all your suppositions and reasonings? You tell me, indeed, that this disposition of things proceeds from intelligence and design. But, whatever it proceeds from, the disposition itself, on which depends our happiness and misery, and consequently our conduct and deportment in life, is still the same. It is still open for me, as well as you, to regulate my behavior by my experience of past events. And if you affirm that, while a divine Providence is allowed, and a supreme distributive justice in the universe, I ought to expect some more particular reward of the good, and punishment of the bad, beyond the ordinary course of events, I here find the same fallacy which I have before endeavored to detect. You persist in imagining, that if we grant that divine existence for which you so earnestly contend, you may safely infer consequences from it, and add something to the experienced order of nature by arguing from the attributes which you ascribe to your gods. You seem not to remember that all your reasonings on this subject can only be drawn from effects to causes; and that every argument, deduced from causes to effects, must of necessity be a gross sophism, since it is impossible for you to know anything of the cause, but what you have antecedently not inferred, but discovered to the full, in the effect.

"But what must a philosopher think of those vain reasoners who, instead of regarding the present scene of things as the sole object of their contemplation, so far reverse the whole course of nature as to render this life merely a passage to something farther; a porch, which leads to a greater and vastly different building; a prologue which serves only to introduce the piece, and give it more grace and propriety? Whence, do you think, can such philosophers derive their ideas of the gods? From their own conceit and imagination surely. For if they derive it from the present phenomena, it would never point to anything further, but must be exactly adjusted to them. That the divinity may *possibly* be endowed with attributes which we have never seen exerted; may be governed by principles of action which we cannot discover to be satisfied; all this will freely be allowed. But still this is mere *possibility* and hypothesis. We never can have reason to *infer* any attributes or any principles of action in him, but so far as we know them to have been exerted and satisfied."

Hume completely demolished the systems of metaphysics which he found created up to the time he began to think. Immanuel Kant, reading the works of the Skeptic, was aroused, as he himself confesses, from his dogmatic slumbers, and on the ruins left by the criticism of the great Englishman reared a philosophy that has forever fixed his name among the great ones of the world.

To Kant, therefore, let us turn.

THE GERMANS

KANT

Kant's precise position in philosophy has been variously estimated, but all who have written of him have given him credit for being one of the most profound minds that has ever been produced by the human race. He has excited universal admiration. Probably every critique that has been written on philosophic topics has exalted Kant in words of the highest praise. When we regard the German thinker from a purely metaphysical point of view we must admit that few men have thought more deeply or have dived down more profoundly into consciousness and its substrata than has the sage of Königsberg.

But while this is true it is also true that Kant speculated upon subjects that were far remote from metaphysics. The range of his thought covered all being, and whatever may be the intricacies or the fallacies of his logic or its conclusions with regard to the truth, there can be no question that he saw nature in a clearer light than most of the men who had preceded him.

It is hard to say whether the great German finds more admirers among those who can see in metaphysics much that is to be regarded with value, or among those late comers who, thrusting metaphysics aside as being perfectly useless, as an organ of investigation, confine their attention altogether to those matters with which pure physical science deals. No one would accuse Professor Ernest Haeckel, the author of the "History of Creation," of being in any manner whatever inclined toward metaphysical speculation, and yet doubtless Kant will find few admirers more earnest than the Jena biologist.

In the work already alluded to, Professor Haeckel calls attention to the fact that Kant's was one of the first minds that thought out a complete theory, at least in general, of what might be termed the doctrine of descent. Of course the passages in Kant's works, in which he treats of this subject, are limited as compared with the volume of matter which he has written concerning other subjects; at the same time he said enough to adumbrate the theory of descent as it is now believed in by those who contend that the Darwinian theory of natural selection is true.

Kant's arguments in favor of the descent of all creatures living at present from one, two, or three primary forms of life are as well worked out as are those of any of the great naturalists who came after him. He gave us very good reasons why we should believe that not only all animals but man also might have been descended from some common ancestors. In fact, he goes into the subject with a carefulness and a caution that mark him in almost all of his writings. He leads his reader to believe at first that he is firmly convinced that the so-called monistic theory is the true one; that all the living animals we now see are closely related to each other in blood; that they are all derived from one, or at least a few, ancient ancestors; that the universe is governed by inexorable laws, and, going further, that all life itself may be derived from one great primordial source.

The theory of evolution is clearly indicated in the passages of Kant's works to which we have referred. Yet it seems odd that although this great theory, which has challenged admiration in all ages of thought, and to which are now devoted the brightest and best informed minds in scientific inquiry, presented itself to Kant's mind with a force which certainly must have moved him, the only conclusion to which he arrived was the simple rejection of it.

Among all the metaphysicians there is no more convinced theist than the originator of the Categories. Indeed, Kant seems to have bent his whole energy, to have brought all the ingenious and marvelous power of his intellect to bear upon the one problem of proving the existence of a God. It has been well remarked that Kant invented his philosophy for the sole purpose of demonstrating that there is Deity. This fact will help us largely to understand his rejection of the theory of filiation, or descent, because he could not satisfy his mind that that theory could be true and yet at the same time that a Creator or a God could exist. To-day the theory of evolution is not at all considered irreconcilable with the theory of a creative Deity. In fact there are those who contend that evolution itself may be used as a proof of the existence of some moving, creating, ruling, supreme power; but calm judgment of the German philosopher's speculations on these subjects will lead us inevitably to believe that in his own mind such a reconciliation was impossible.

Kant therefore rejects the mechanical or monistic theory to account for the existence of the world and of things, and replaces it with a theistic theory.

We have already said that Kant himself admitted that it was the reading of Hume's Works which roused him from his dogmatic slumbers. There is no doubt that this is perfectly true, for Kant's whole effort was directed toward proving that the English philosopher was wrong. It is said, and possibly wisely, that Kant did not originate a system. Those who say that the great German was an idealist have evidently not understood his position. It is true that the German idealists all spring from Kant; but there is no more reason to believe that Kant himself was an idealist than there is reason to believe that Socrates was a Cynic, a Skeptic, a Stoic, an Academician, or a Peripatetic; for, as the reader already knows, all these divergent schools, with their different, nay, even in some cases antithetic tenets, sprang from the orator of the Agora.

Whatever Kant might have been he was certainly not an idealist. He believed in the existence of matter, and he believed in the existence of mind, and, as if to prophetically protest against the charge of idealism, he repudiated in unmistakable words the theory of Fichte, which, as was understood, was derived from his teachings, and this in Fichte's own life, when Fichte was supposed to have been the most brilliant pupil of Kant himself.

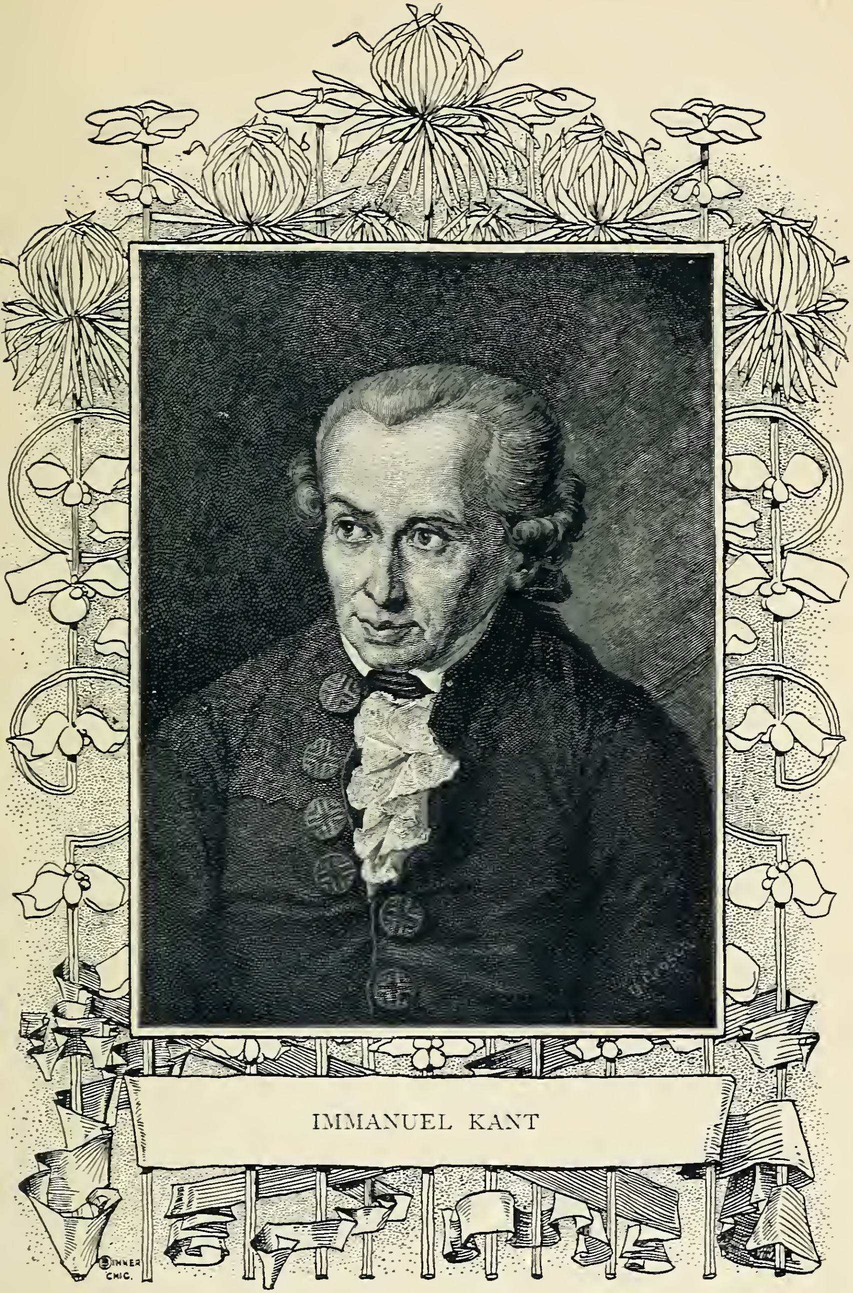
Fichte, who sat at Kant's feet, proclaimed an idealism that is inscrutable to the ordinary mind or even to the extraordinary mind. Schelling and Hegel, who came after, developed this idealism until we find it in the total non-understandable and unknowable Absolute of the last named philosopher. The difficulty has been this; that Kant wrote in most involved style, touched upon subjects which were not at all germane to the leading concept of his thought, threw out lines of speculation into sciences which had nothing whatever to do with the Criticism which he proposed as the only true method of philosophizing, and in many other ways presented to his readers such a complicated mass of matter that he is one of the most difficult of writers upon metaphysical subjects to understand. Those who speak of Kant as a dreamer or a mystic have either not understood the German's thought or certainly do not know the meaning of the words they use.

Kant looked over all the systems of thought which were presented to his view, but none of them could satisfy his mind. It was only when he came into contact with the supreme skepticism of Hume that he was "roused," as he tells us, from his dogmatic slumbers. On the ruins which Hume had left of the philosophical and metaphysical studies that had been proposed up to his time, Kant suggested to himself the tremendous task of uprearing some structure of certainty and some sure basis of knowledge. In this position the question which thrust itself most forwardly upon his mind was the same question which had thrust itself upon all minds that had approached the problems of ontology from the same direction. That question was a question of Method. How was he to do it? Many methods were open for consideration. Of course, as Hume was the only metaphysician who had attempted to use the Baconian method as applied to philosophy, and as it was Kant's purpose to destroy Hume, it is not to be regarded as surprising that Kant should have rejected the Baconian method which Hume himself had used. Herein we find reason for giving to the mind of Kant all that praise which has been bestowed upon him since he first published his *Criticism of the Pure Reason.* We mean by this that Kant saw at a glance that Hume had exhausted the Baconian method so far as it could be applied to metaphysics; and that if the Baconian method was to be used in metaphysics at all, no conclusions other than those to which Hume came could possibly be drawn.

Therefore, we find that the very first matter with which Kant concerns himself is a matter of Method. How shall we approach this subject? he asks. The method which Hume adopted is evidently useless for the purpose for the reason that by its use Hume has landed himself in a maze of hopeless skepticism. We will therefore try what may be done with the method of criticism. Thus the *Criticism of the Pure Reason*, or, as its title is more popularly known, the *Critique of Pure Reason,* constitutes the rock of the Kantian metaphysics; but, after all, this rock is only a Method as the title of the work implies. It seeks a way of resolving the origin and abstract validity of the principles of knowledge, but not the application of those principles to the knowledge of nature. Such an application of the critical method had yet to be applied, and this application Kant provided in 1786 in his *Metaphysical Elements of Physics,* supplementary to which were many minor publications on subjects of physics, philosophy, or history, and the science of races, or ethnology.

In 1788 Kant produced the second part of his great philosophical work, the *Critique of Practical Reason.* In this he develops his morality, which is really, after all, the central motive of his work. In 1785, he published his *Groundwork of Ethics,* and in 1790, his *Critique of Judgment.* Before the publications of the last three critiques the thought of Kant had already produced a tremendous impression in Germany, and had not only revolutionized German thought, but had also given it an impulse which was to carry it to an extent undreamed of before the appearance of Kant upon the scene. But not only in Germany was the Kantian philosophy taken up, defended, developed, and taught. This influence spread over the whole Continent, and the Königsberg professor found in England ardent adherents of his doctrines.

Any adequate exposition of the philosophy of Kant is manifestly impossible within the narrow limits of this


BINNER
CHIC.

IMMANUEL KANT

work. For the ordinary reader we may well say that the metaphysics of Kant is utterly *caviar;* but apart from his very great importance as a philosopher and the tremendous influence his mind exerted not only upon the age in which he lived but which was also to descend to generations to come long after him, Kant was a most interesting personality. He has been well ranked with Descartes, Leibnitz, Locke, Hume, Spinoza, and the greatest of the metaphysicians who lived about that time.

He was born in April, 1724, at Königsberg, a city of German-Prussia. About the town was a flat, featureless country, cold, damp, and foggy, and in the heart of the town rose an ancient university. His early days were spent in solitude and in deep thought. His later days as professor of logic and metaphysics in the university where he was educated.

It is said that this, one of the deepest thinkers of any age, never traveled farther than forty miles from the spot where he was born. It may interest those who regard Hume, Reid, Stewart, and Hamilton as among the brilliant minds in the history of philosophy, that the originator of the critical method was a Scotchman by descent. The name was originally spelled Cant, and his grandfather was a full-blooded Scotchman, who settled in Germany. The father of Kant himself was John George Kant, an humble saddler in the city where the philosopher was born. The University of Edinburgh in the time of Charles II had a president whose name was Cant, and in the reign of the same monarch, a preacher of that name was equally celebrated for his zeal and fire. Thus Presbyterians can justly claim that the prime philosopher of Germany had some of the old Covenanter spirit in his soul.

The future philosopher was the fourth child of a very large family, of whom none achieved fame except himself. His parents were deeply religious, and determined that the life of Immanuel should be devoted to theology and to preaching. His boyhood education was received in Frederick's Gymnasium at Königsberg under a distinguished evangelical minister of the city. As a student in the Academy his favorite authors were Horace and Virgil. It was in this gymnasium that young Immanuel became acquainted with Ruhnken, who afterward achieved a celebrated reputation as a philologist.

Kant did never forego his love of the classics, and it was said that he derived much pleasure from reading the Roman poets throughout his life. At sixteen he entered the university as a student of theology, and had the pleasure of studying under Dr. Schultz, who had been his teacher in the Academy. As a collegian he showed great fondness for mathematics and the physical sciences, but did not for a long time turn his attention to metaphysics. Indeed, the gain of Kant for metaphysics has been the loss of physics. We have already called attention to his profound speculations as to the theory of descent, but Kant originated also a theory of physical science, which is to-day considered one of the grandest generalizations of the human mind. That theory is more familiarly known by the name of nebular hypothesis or nebular theory, and the credit for its origination is usually given to LaPlace, the distinguished French astronomer.

It is true that LaPlace, with his intimate knowledge of the structure of the solar system, was able to elaborate the theory in more detail and present it with more plausibility than was the cruder mind of the German. At the same time if any man is to be given praise for having thought of the theory first, that praise belongs to Immanuel Kant. Kant did not reject the nebular theory after he had thought it out, as he did the theory of filiation, presuming, perhaps, that the nebular theory would not be in conflict with his theological contentions. It has been said that this theory is, after all, as much of a "guess" now as it was in the time of LaPlace or of Kant, but aside from the merits of this question, there is no doubt that the generalization which is known as the nebular hypothesis is one of the boldest and most beautiful conceptions based upon the observation of natural phenomena.

It is difficult to imagine the ponderous intellect of a Kant preparing a sermon to preach to common people, to the friends of his father's humble family, and to persons whom he had known as boys and girls in his own childhood, yet this is precisely what he did. Even as a theological student he gave sermons in the churches about the neighboring country, but it is not odd that the philosopher found little success as an exhorter or a pulpit orator. In fact, ecclesiastical life was anything but to his liking, the more so that it would seem that his mind was disturbed by certain theological notions which were not precisely in line with the leading doctrine of his creed. Once having come into this state of mind he promptly abandoned all of his preparatory work for a theological career, and decided that he would thereafter devote himself solely to teaching in the university and to philosophy.

In 1745 Kant's father died, and he was compelled to face the problem of earning a living. He solved it by taking the position as a tutor in a private family. For nine years the philosopher lived in this capacity, teaching elementary studies to boys and girls, and earning a poor pittance upon which to support himself. This, for those who admire Kant, may always be regarded with pleasure, for it was while he was engaged in the simple duties thus involved that his mind busied itself within the speculations out of which was to emerge his system.

He was writing even, and in 1747, almost at the beginning of this phase of his life, he brought out his first work, *Thoughts on the True Measure of Living Forces,* which is an able examination of the teachings of Leibnitz. In 1755 he entered the university and took up the position of privat-docent, at the same time preparing himself for his degree of doctor of philosophy. That degree he won easily with two theses, one on physics and the other on metaphysics, but in neither of them did he indicate aught of the original thought which he was to evolve.

He was a humble lecturer for fifteen years in the university; in the very first of which he published his *Theory of the Heavens,* a work in which he outlines a development of the solar system on the principle of gravitation laid down by Newton. In this he predicted the discovery of additional planets, which were afterward actually discovered, and are now known by the names of Uranus and Neptune.

The French astronomer, Lambert, was so struck with the work that he sought out the anonymous author, who, by the way, had dedicated the book to Frederick the Great, and astronomer and metaphysician were thereby led to a delightful correspondence. Herschel likewise recognized the genius of Kant in astronomical speculations.

It was not until 1762 that Kant made his appearance as a logician with his treatise on the *False Subtlety of* *the Four Syllogistic Figures.* During the fifteen years of his university teaching he produced a great quantity of literature, all of which was interesting, and all of which was well received and made a good impression. Given the opportunity of taking the chair of poetry in 1764 at Königsberg, he declined it, but accepted the position of librarian to the Royal Library, to which was attached a small salary. In 1770 he was elected to the chair of logic and metaphysics at Königsberg, which had been the ambition of his life, and for which he had declined offers from Erlangen and Jena. This chair Kant occupied for twenty-seven years.

Kant's life as an author did not close with his critiques. Physics, history, politics, and anthropology were discussed in various articles and treatises in the interval between 1790 and his death in 1804, but the most capable works of this closing period are those which relate to natural theology and to the theory of religion. The first part of his work, *Religion within the Bounds of Pure Reason,* was published in 1792. The novelty of the views presented in the treatise created much adverse comment and occasioned a collision on matters of theology between Kant and the Prussian Government. The latter in condemning the opinions of the author forbade the remainder of the work to be published, however. This was not a last resort, for some of the German universities had a right of appellate jurisdiction in cases of this peculiar kind. Kant took advantage of his opportunity to appeal, and referred the case to the theological faculty of his own school.

It is not to be wondered at that the university which he had already so richly endowed with his genius and tremendous intellect decided in his favor, and the remainder of the whole work appeared in 1793.

The purpose of this book is to represent the moral and spiritual part of Christianity as an element independent of the history and metaphysical doctrines with which it is associated, and thus permanently to reconcile with reason all essential religious belief or feeling by placing this last above the advantages and chances of historical controversy. Kant did not deny the fact of a miraculous revelation. He confines himself to the discussion of its possibility, at the same time calling attention to the fact that the only final and positive proof of its truth must lie in the harmony of its content with reason and conscience.

The controversy was, on the whole, unfortunate for the celebrated author, for it attracted to him the displeasure of the King, who demanded from him a pledge that he would refrain in future from lecturing or writing on questions of theology, a pledge which he observed until the death of the monarch in 1797, which event he considered as having set him free from his promises. He then reverted to his theory of religion, but with no good effects to his peace of mind, for he was ever after more or less troubled with the perturbation of spirit which the acerbity and asperity of the conflict had produced within him.

In 1797 he withdrew altogether from the society of men and resigned his position in his beloved university, with which he had been connected either as instructor or professor since 1755. His life was now one of retirement and easy living. He refrained from much writing, and, in fact, one of his last efforts as an author was a criticism of his new and zealous pupil, Fichte, whose system, popularly supposed to have been founded upon Kant's philosophy, and possibly believed by Fichte himself to be an outgrowth of his master's system, was already rising in fame.

About this time the old professor's mind and body began to feel the weight of their years, his memory began to fail him, and he suffered much from restlessness, irritation, and insomnia. He died on the 12th of February, 1804, within a few weeks of his eightieth year. His body was buried in the academic vault of Königsberg, and the whole faculty of the University and all of its students, together with a great crowd of visitors from all parts of Prussia, were present at the interment.

Kant was never married. He lived a life of regularity necessary for the fulfillment of the vast work which he did—vast in consideration of his rather weak physique. He was small and thin, and his constitution was feeble, but he never neglected his health, never indulged in any dissipations of any kind or overtaxed his strength in any manner, and during the eighty years of his restlessly industrious life, he was never ill for a single hour. The habits which he formed in his youth he clung to in his middle life and in his old age.

He was accustomed to wake up every morning in the year at a quarter before five; very soon after that he breakfasted. He then read and meditated until seven o'clock, and then went to his lecture. His habits of lecturing were for the most part extemporaneous, using here and there a few jottings written on slips of paper or on the backs of envelopes. These lectures were the most celebrated that were then being delivered in Europe, for although Kant's books are ponderous reading and are written in a most involved style, difficult to understand, his lectures were smooth, flowing, easy, consistent, and simple, and were readily understood and appreciated by men of ordinary intellect or culture.

After his lecture he retired to his study, where he remained until one o'clock in the afternoon. At that hour he dined and almost invariably had some congenial friends to join with him, among whom were to be found young students who might be brilliant, physicians, professors, merchants, ecclesiastics and foreigners who, coming to Königsberg, and, having heard of the fame of its wonderful metaphysician, had some desire to meet him.

On such occasions as these Kant was by no means the philosopher, but the congenial friend. He positively forbade discussions of metaphysics at his table, but loved to talk politics, science, new discoveries in physics, astronomy, and such other subjects as would make an interesting and agreeable topic, while at the same time an intelligible one to the heterogeneous company that assembled at his board.

He was not niggardly with his time when his dinner began, and he loved to sit for hours after the meal had been finished talking with his friends. When the day was far spent he prepared himself for a solitary walk. He took it alone, and no change of weather or season, foul or fair, ever stopped him. On his return he read newspapers, and this part of the day he usually loved to devote to the discussion of politics and contemporaneous history with the people whom he met. The evening until ten o'clock was given to meditation and then to light reading, by which he invited sleep. This is a daily account of the life of the author of the famous Critiques.

Kant was not much of a reader. His collection of books was said to have been very small. He liked to do his own thinking, and it was possible the deep lesson which he learned from Hume that there was little to be found in books that was worth knowing, lasted him throughout his life. He lived in the simplest style. The furniture of his house was commonplace, and his dress was plain, but always clean. There is no man, with the possible exception of Herbert Spencer, who has lived a life that was more purely intellectual than was that of the Königsberg thinker.

FICHTE

Johann Gottlieb Fichte, although repudiated by his master, was without doubt the greatest name of the pupils of Immanuel Kant. In reading the life and doctrines of Fichte it is hard to say which be the more interesting, the romantic details of his life or his strange philosophy of the ideal. He was born at Rannenau in Upper Lusatia on May 19, 1762. His father was a very poor man but of a high and noble character. That Fichte inherited all of his father's goodness is apparent to anyone who has ever read his "Life of the Scholar and Its Manifestations," or anyone who has in any measure tried to understand what he means when he attempts to convey to the mind of his pupil or of his reader the concept involved in what he describes as the "Divine Idea." He was not only a philosopher and an Idealist. He was also a patriot and lover of man, a hero in mind and character, a loving heart, and an intellect with which there are few we can compare in all the history of philosophy.

He has been not unfitly called the soldier of philosophy. With Fichte, individuality is the one dominant sentiment, and throughout all his life ever appears in strong, clear, pulsating light, that individuality which was undoubtedly his own. He not only thought his philosophy, he felt it. Had he not attracted the attention of a noble German, the Baron von Miltitz, it is probable that Fichte had never been able to achieve what he did in the realm of thought and education. But the Baron was a kind friend to the thoughtful, sentimental, meditative boy, and by the help of this gentleman Fichte was enabled to acquire a liberal education and become himself a teacher of the young.

At the early age of nine we find Fichte wandering away from his home out into the country, looking up at the blue sky, listening to the rush of the winds in the trees, or perhaps to the bubble of some brook that flowed at his feet, looking into its clear depths and watching the pebbles, trying to gather lessons of wisdom from them; marveling at the strange feelings stirring within his breast; thinking of God, of love, of humanity; ever dreaming, ever visionary, ever unpractical.

He was never popular with the boys of whom he should naturally have been the playmate and companion. While they, perhaps, played at marbles or other such games as were common at that time, Fichte was thinking of other things. These odd characteristics caused many persons to apply to him peculiar sobriquets, descriptive of his way. Wonderful as it would seem in a boy of this kind, Fichte, when fourteen, resolved to become a second Robinson Crusoe. The excuse for this bizarre conception on the part of dreamy and solitary youth is best explained by the fact that he had been ill treated, or that some other injustice had been administered to him, in the College of Schulpforte. With Fichte, thought was action, and once having made up his mind that he could no longer associate himself with persons who had such small sense of what was just and honorable, he left the college and started out on his way to Hamburg, to find some ship which would carry him to the island where he would not be troubled by contact with people who did not know right from wrong, and where he could look at the sky and the sea and the stars to his heart's content, and think out all his little thoughts just as he pleased. But in the journey toward the seacoast he thought of his mother, and that thought caused him to renounce his plans and to return.

It has been said of him that he was destined to be a Robinson Crusoe of metaphysical science, and this is perhaps true in every sense. If we except this romantic and adventuresome incident, Fichte was a diligent student. As a mere boy he read all the books in the German language which came within his reach, and it is probable that he forgot none of them. His first university was Jena, where he commenced his career as a student of higher things, and his second was Leipsic, and his last Wittenberg. In the middle of his university career the death of his noble patron forced him to look out for himself, and Fichte took up the only occupation which could be open to a man of that character at that time; that was the inevitable tutorship, and nine years he spent in teaching, principally at Zurich. It was in that famous institution that the originator of the "Divine Idea" met with the educator, Pestalozzi. In Fichte's later work as an educator he conformed largely to many of the ideas which he had learned from his famous friend.

It was at Zurich, too, that Fichte met a lady who was a niece of Klopstock, and who was afterward to become his devoted wife. In 1790 he returned to Germany with the intention of finding some employment which would be more congenial to his nature than that of a teacher of elementary knowledge, but this trip was disastrous, and after having traveled into Poland, he wandered back until he found himself at Königsberg, where Kant was now ruling the intellectual world from his supreme throne. To Kant Fichte went immediately, as was perfectly natural in a man of his kind. He told Kant his story and besought him for aid, but it is said that the philosopher not only received the young man in a manner to discourage all efforts of a closer acquaintance, but that he also refused to even give him a few cents for the relief of very urgent and immediate wants. Later, however, the great Critic treated his pupil with more consideration.

Fichte was just thirty years of age when his first production appeared in print. The title of it is an index to his character. It is "An Attempt at a Critique of all Revelation." Revolutionist though Kant had been, this was a sort of revolution bolder than any that had ever occurred to the mind of the founder of Criticism. It was the correlative in philosophy of the political sentiment which then burned in the breast of the future Idealist, for Fichte was an enthusiast of the great movement that was then stirring the heart of the world in Paris and in France—that revolution which was to shake Europe and cause the world to stand in horror at atrocities as unutterable as Rome ever knew.

To Fichte's credit be it said that at this time, when he was preaching in favor of the French Revolution, that movement had not yet taken on the phase which was to cause the streets of Paris to be dyed with the blood of innocent people and which was to horrify humanity with its September massacres and its drownings in the Loire.

In 1794 Fichte accepted the professorship of philosophy at Jena, and this accession determined the whole course of his life and his thought.

The founder of German Idealism became the editor of a philosophical journal, with his friend Mitthamer as coeditor, in which he published an essay that brought upon him the charge of atheism. This charge is ridiculous when Fichte's philosophy and teachings are considered, but, as we have seen, it is those philosophers who are most profoundly convinced of the absolute necessity for the existence of a Deity that are always the first and most fiercely to be accused of not believing in any Deity whatever.

Of course he repudiated the charge, and did his utmost to convince the world that he was guiltless of it, which he really was. But the calumny spread, took root, and hard as he fought against it, he was at last forced to succumb, and he resigned his professorship.

Then he went to Prussia and in 1805, he secured the appointment to the chair of philosophy at Erlangen. This part of Fichte's life belongs more to the patriot than the philosopher. He wrote his famous book, "Addresses to the German Nation," which is perhaps the most eloquent of all his writings, eloquent though they all are, and which breathes his personality and the fiery zeal of his character in words that may well be compared with the best examples of this kind of writing in literature. Fleeing from the troubles that came upon the country and of which he was a large part, he went to Berlin and decided that he would stay there. At that time the now famous university had just been launched, and Fichte was offered a position in the new school. It was while he was teaching at Berlin that he developed that great Ideal System, which more than all others, not even excepting that of Berkeley, may be compared with the philosophy of Gautama, for it must be remembered that Berkeley was the pure metaphysician, while the very basis and life of the Fichtian philosophy may be said to be involved in its moral doctrines.

Fichte's lectures in Berlin were largely attended, and he was regarded with positive love by the numerous students who listened to him. He lived in lectures. He addressed himself not only to the intellect of his hearers, but to their hearts. His intense personality, his passionate style of delivery, his supreme earnestness, together with his brilliant diction, enslaved all who heard him. During the War of the German Liberation the philosopher was one of the foremost of the patriots. It has been well said of him that if he did not actually gird on the sword and fight, he flashed, himself a sword, before the eyes of his countrymen.

An incident is related in this connection which will bear repetition. Fichte is before his class about to begin his lecture, which was announced to be that day upon the subject of Duty. The lecture proceeds to the sound of rolling drums without, which frequently drowns his voice. Inspired by that sound, he devotes his entire attention to the subject of Duty, it is true, but duty to country. He tells his hearers many truths which they already know, but which, when uttered by his lips, assume new importance.

At the end of his speaking he said: "This course of lectures will be suspended till the end of this campaign. We will resume them in a free country or die in the attempt to recover her freedom." This speech was received with wild enthusiasm, and he left the hall to become a soldier in the great campaign of 1813.

He lived just one year thereafter. His wife, who was a woman of a noble character and worthy of her noble spouse, had become a nurse in the army and had been kind, with many other ladies, to the poor soldiers without regard to their nationality. While engaged in these duties she caught the hospital fever which she communicated to her husband. Frau Fichte recovered, but her husband died. His death took place on the 28th of January, 1814, at the zenith of his power, of his fame, and of his glory.

If Kant was a weak man, physically, Fichte was a strong one. He had a wide, deep chest, muscles as rugged as those of a lion, a clear, sure, firm eye, unusual strength of arm and the tread of a gladiator. His moral character has been said to have been perfect. Certain it is that no one could ever lay any charge against him which might not be laid against the best of men.

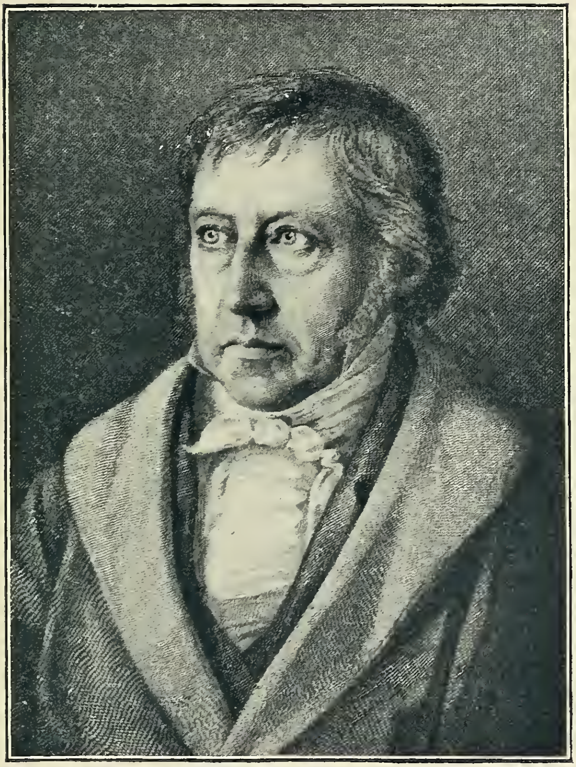
Fichte's principal works are these: *On the Conception of the Science of Knowledge, or so-called Philosophy* (1794), *Foundation of the Entire Science of Knowledge* (1794), *The Natural Life of the Scholar* (1794), *Foundation of Natural Right According to the Principles of the Science of Knowledge* (1796), *Statements of the Science of Morals* (1798), *Characteristics of the Present Age* (1805), *Way of the Blessed Life; or, Theory of Religion* (1806). In this last book will be found Fichte's religious system, or rather his conception of what morality should be. In it we find the key-note to the practices of his daily life. That strong morality, that tremendous Faith which he so loved to teach and of which he himself was such an exemplar, find many enthusiastic adherents to-day, not only in the country of his birth, but in many other places and climes.

As we have already said, Fichte no doubt believed that his system of Idealism was founded upon the philosophy of Kant. Yet we know Kant deliberately repudiated Fichte and his Idealism, and went to the trouble of writing a book to do it. Therefore, it may be just to here say that the best judge of the facts in the case as to whether Fichte really founded his philosophy upon that of Kant was the Königsberg man himself, but even had Kant not repudiated his pupil's philosophy, any adequate study of the Critical method and its results will satisfy us that Fichte made a new departure and borrowed nothing from his master.

In the metaphysics of Fichte one purpose seems to be ever present. That purpose is the elucidation of the doctrine that things, that is to say, all the outside world, are merely Out-Being (*Dasein*), as he calls it, from the mind (*Sein*). That is to say, things do not exist except inasmuch as they project from the mind. This is the celebrated Idealism of Fichte. It is not to say, however, that the outside world is a phantom or that the outside world has no existence whatever. That is one thing. The doctrine that Things are ideal leaves no room for doubt as to the reality of the things. The things are real enough, but they are real only in the mind. Fichte cannot disassociate mind from Things and Things from mind. He repeatedly says that Things are but the Out-Being, or the Ex-Istence, of the mind.

This matter may be a little difficult to understand, because it is hard for those who are not accustomed to metaphysics to bring themselves to the belief that objects can exist only in the mind and not in themselves. The ordinary man thinks that he knows that the apple which he holds in his hand is something entirely distinct and separate from himself, has an existence independent of him, and that it would continue to exist were his mind obliterated. We have seen that Bishop Berkeley held much the same thing as Fichte held. But the difference between Berkeley's Idealism and that of Fichte lies in the fact that Berkeley approached the subject in a very cool, deliberate manner and discussed it with all the caution and deliberation of the microscopist who is making an examination of a number of minute organisms under his glass. Through Fichte's Idealism runs a living stream of religious faith. This is not to say that Fichte is not logical, but it must be admitted that he is by no means the philosopher that was Berkeley.

He looked about him for the truth. To Fichte, as to



G. W. F. HEGEL
Painting by L. Selbers

all other thinkers, one fact presented itself when he first set his mind to the problems of Ontology. That fact was the fact of the existence of Self and something that was not, apparently, Self; Ego and non-Ego. He sought an explanation of these things, and he believed that he found a way, as did Locke, deep down in his own mind and there alone. Can the truth be known? asked Fichte. He thought it could, and he believed he had found a way.

He says: "I have found that organ by which to apprehend all reality. It is not the understanding, for all knowledge supposes some higher knowledge on which it rests, and of this ascent there is no end. It is Faith, voluntarily reposing on views naturally presenting themselves to us, because through these views alone we can fulfill our destiny, which sees our knowledge and pronounces that it is good, and raises it to certainty and conviction. It is no knowledge but a resolution of the will to admit this knowledge. This is no mere verbal distinction, but a true and deep one, pregnant with the most important consequences. Let me forever hold fast by it. All my conviction is but faith, and it proceeds from the will and not from the understanding. From the will also and not from the understanding must all true culture proceed. Let the first only be firmly directed toward the Good. The latter will of itself apprehend the True. Should the latter be exercised and developed, while the former remains neglected, nothing can come of it but a facility in vain and endless sophistical subtleties refining away into the absolutely void inane. I know that every seeming truth, born of thought alone, and not ultimately resting on faith, is false and spurious; for knowledge, purely and simply stated, when carried to its utmost consequences, leads to the conviction that we can know nothing. Such knowledge never finds anything in the conclusions which it has not previously placed in the premises by faith, and even then its conclusions are not always correct. Every human creature born into the world has unconsciously seized on the reality which exists for him alone through this intuitive faith. If in mere knowledge—in mere perception and reflection—we can discover no ground for regarding our mental presentations as more than mere pictures, why do we all nevertheless regard them as more, and imagine for them a basis, a *substratum* independent of all modifications? If we all possess the capacity and the instinct to go beyond this natural view of things, why do so few of us follow this instinct, or exercise this capacity?—nay, why do we even resist with a sort of bitterness when we are urged toward this path? What holds us imprisoned in these natural boundaries? Not inferences of our reason; for there are none which could do this. It is our deep interest in reality that does this—in the good that we are to produce—in the common and the sensuous we are to enjoy. From this interest can no one who lives detach himself, and just as little from the faith which enforces itself upon him simultaneously with his own existence. We are all born in faith, and he who is blind follows blindly the irresistible attraction. He who sees follows by sight and believes because he will believe."

With this organ of Faith Fichte proceeds to develop his Idealism. We have said that his individuality runs through all his philosophy, and his entire system of Idealism is nothing but the expression of the highest individualism. Berkeley was willing to admit that objects might exist independent of any individual mind, but not independent of mind altogether. Fichte individualized this thought, and held that the non-Ego was no more or less than the Ego itself; that Things did really exist, but that they existed only as part of the mind. His philosophy is universal. It takes in the infinite, and one cannot but feel in reading it the poetic nature of the author, for Fichte was a poet without question.

His metaphysics leads him straight to God, and there is involved here, without any question or doubt, a Pantheism as noble as that of Spinoza, Bruno, or of any of the Pantheists that ever wrote. Plato's philosophy has been called poetical. We have seen that however much poetry there may be in them, when we generalize the doctrines of Plato and do not consider the processes of ratiocination by which he arrived at his conclusions, those processes were of a character the most rigorously logical. The Good, the Beautiful, the True, the Sublime—all this *sounds* poetical at least, but when we consider the method by which Plato derived these categories we will see that it had as little sentimentality in it as it well could. And although Fichte was logical (or at least used logical methods) there is a fire of feeling running through his entire works. He feels his philosophy as much as he lived his lectures.

Fichte deserved the charge of atheism as little as did Spinoza, Bruno, Socrates, Averroes, or any other of the great speculators who refused to be bound by the narrow limits of a creed. Fichte not only believed in a God, but he believed that he himself was God, and that every other man was God; and, therefore, he tells us that in any human form, however so poorly clothed, we should see that part of God and of ourselves which is equal with ourselves and equal with God. He did not attempt to *prove* the existence of a God, and in this he was perhaps more circumspect than was Descartes, Locke, Hobbes, Spinoza, or Bruno. He writes: "God must be *believed* in, not *inferred.* Faith is the ground of all conviction, scientific or moral. Why do you believe in the existence of a world? It is nothing more than the incarnation of that which you carry within you, yet you believe in it. In the same way God exists in your conscience, and you believe in him. He is the moral order of the world. As such we can know him, and only as such. For if we attempt to attribute to him Intelligence or Personality we at once necessarily fall into anthropomorphism. God is infinite; therefore beyond the reach of our science which can embrace only the finite, *but not beyond our faith.*"

The last sentence defines precisely the position of many different schools of thought most widely divergent in their doctrines. Among them we may place the celebrated, and possibly much misunderstood, school of Agnosticism.

Fichte insists upon duty. To understand the relations of men in such manner as will enable us to realize the supreme moral necessity of living up to the golden rule of doing unto others as we would have others do unto us, and then to carry out that understanding in practice, is the total result of all of Fichte's speculation and thought. We know of no more compact, concise, and perfect description of Fichte's theory of morals (and, we may say, of his politics, religion, and philosophy) than is to be found in the closing sentence of Herbert Spencer's "Social Statics": "No one can be *perfectly* free until all are free, no one can be *perfectly* moral until all are moral, no one can be *perfectly* happy until all are happy." This freedom, this morality, and this happiness Fichte proposes to achieve by the idealization and realization of duty.

When a man has found what Fichte calls the "Divine Idea," his conception of this duty will be perfectly clear, and he cannot live but in one way. For him all questions of morality, religion, and truth have been answered.

He has realized perfect Faith. But what is this "Divine Idea"? How can we know it? Can we define it? Is it possible for one man to teach it to another? Fichte does not seem to believe that an affirmative answer can be given to the latter question. Indeed, it is very plain that he was convinced that it was impossible for him to more than indicate the existence of the possibility of arriving at the "Divine Idea"; else he had made the attempt at a better definition. He says that the "Divine Idea" is to be had by all men. But the best he can do to teach us how to reach it is to tell us to try. You will know it, he says, when you have been adequately prepared for its reception. There can be no mistaking it. It will place you at once *en rapport* with the Good, the Beautiful, the True, the Infinite, the Divine. He therefore (and he very explicitly states this) places the Divine Idea without the realm of knowledge or science, and this necessarily so, for were this great desideratum to be achieved by science there would be no necessity for faith. Try, therefore, to bring your faith to its only satisfying and all-inclusive material. When you have done so you will be happy.

If this is philosophy or morality of any kind, it is the philosophy and the morality of Mysticism. We are perfectly justified in classifying Fichte more with the Mystics than with the Idealists. Who can explain what Fichte means by "Divine Idea"? He admits himself that it cannot be explained; but that it was a mere pretension upon his part no one who has read the man's writings or who has pondered over his intensely honest and pure character, can believe. It might have been an illusion. He might have confounded feeling with thought. He might have mistaken the symbols of ideas for ideas themselves. He might have been a very unscientific and uncertain psychologist. But that he believed in himself and in the truth of what he felt or thought, there is not any room for doubt. He will ever remain one of the most fascinating of the Mystics. As such let us leave him here.

SCHELLING

Friedreich Wilhelm Joseph Schelling drew most of the inspiration that led to his philosophy of the Unconditioned from Fichte when the latter was a professor at Jena. Schelling and Hegel are always mentioned together, and perhaps with good reason, for although they pretended to elaborate systems which differed from each other, it must be admitted that it is hard for anyone who is not well versed in Mysticism to conceive any great dissimilarity between the doctrines of the two men.

Schelling was the son of a country clergyman and was born in 1755 at Leonberg in Würtemberg. He too, was a very precocious child and possibly with a quicker intellect than that of his master in the way of grasping abstractions. He was such an unusually intellectual boy that he was enabled to enter the university of Tübingen when only fifteen years old. It was at this school that he made the acquaintance of Hegel, and the two worked together for many years, loving each other now, disagreeing with each other then, and finally separating. At so early as the age of seventeen Schelling proposed to himself to win the highest honors in philosophy in the university. To accomplish this purpose he wrote a Latin thesis *The Origin of Evil as Laid Down in the Third Chapter of Genesis.* His mind seemed to have been seriously taken up with questions of religion as related to philosophy, rather than with questions that concerned themselves with philosophy alone, for we see him in 1795 publishing an essay on *Marcion, the Corrector of the Pauline Epistles.*

From Tübingen he removed to Leipsic and there engaged himself for a small space to be the tutor to a German nobleman. Wandering from Leipsic he came to Jena, which at this time was probably the foremost university of Germany. At Jena he found Fichte, and we can readily believe that the intellectual youth of Würtemberg soon fell under the spell of the patriot philosopher and supreme Idealist. On entering Jena Schelling took up the study of medicine and philosophy, preferring these two branches of learning to the others that were taught in the university. As a student of philosophy he attended the lectures of Fichte, became one of his most ardent disciples, and managed so well to assimulate the views and copy the manners of the German of strong heart, that when Fichte left the chair at Jena he was succeeded by Schelling.

His lectures attracted wide-spread attention, and he came to be discussed in the intellectual debate of Europe. His fame went abroad, and he was invited to Würtemberg, there to occupy the chair of philosophy. This was in 1803. So well had his ability as a teacher impressed itself upon high and low alike that the King of Bavaria was moved to ennoble him. For that reason, possibly, we find him in Munich in 1807, where he remained until 1841. The University of Munich was founded in 1827, and Hegel there filled the duties of a professor of philosophy until, at Jacoby's death, he was made the principal of the Academy of Sciences. He lived at Erlangen for a time, still lecturing upon his favorite subject, and in 1841 he was called to the chair of philosophy at Berlin.

So poorly had the friendship of Hegel and Schelling thrived during the interim, that it was to lecture against the philosophy of Hegel, now dead, that he was called to the Capital. Hegelianism had meanwhile sprung up with the strength of a living blaze that was spreading everywhere. There was but one man in Europe at that time who was capacitated to contend against the founder of the Absolute school, and that was Schelling. But if Schelling deposed the system of Hegel, it does not appear in the results that followed. At Berlin Schelling's lectures were not well attended. He was fighting Hegelianism. He had to fight it with its own weapons. Those weapons, possibly, were familiar to his hand, but it is a fact that as he continued to fill the chair of philosophy the expression of his thought became more obscure, more prolix and more mystic. He died in 1854, and the last years of his life were spent in retirement.

It would be utterly impossible, even though our space were unlimited, to describe the philosophy of Schelling. It cannot be done; or, at least, no man has yet appeared who seems to have been able to accomplish the task in any manner satisfactory to anyone but himself. Schelling was probably the most prolific philosophical writer of Europe, if we make exception of some of the scholastics. We can describe, however, his leading doctrine.

If we admit that there are two kinds of truth, one absolute truth, or truth as it exists by and in itself; another, truth as it is considered in relation to our own minds, we will be prepared to understand the position which Schelling took in the matter of knowledge. The first kind of truth described is called the Unconditioned; the second, the Conditioned. Many philosophers, then, as well as now, contend that the mind is capable of understanding only those truths which stand in relation to each other and in relation to the mind. This tenet is now generally described by the use of the term "the Relativity of Knowledge." These philosophers say that the mind, in its very nature, is incapable of understanding the Unconditioned. Therefore, the Conditioned, or the relative, is the only proper material of speculation or investigation.

Schelling took up the position the very reverse of this. He taught that the only proper sphere and object of philosophy was truth Unconditioned. He taught that the pursuit of truth as it stands related to pure intellect, that is to say, to intellect considered universally and not considered in any of its modifications or specializations, is the business of philosophy. He held that truth is absolute and Unconditioned, and that it is possible for a man's intellect to know the truth as such.

Of Schelling's system Morrell, in his *Modern German Philosophy*, says: "The latter phases of Schelling's philosophy are chiefly characterized by unavailing attempts to reconcile the Pantheistic standpoint which he first assumed, with the notion of a personal Deity and with the fundamental dogmas of the Catholic faith. In doing this he lost the freshness and charm of his first philosophic principles on the one hand, without settling the problems of religion or satisfying the practical religious requirements of humanity, on the other. He merely glided step by step into a strained, unintelligible Mysticism, and, without acknowledging it, became a foe to all purely philosophical speculation and a tacit abettor of an antique romanticism."

HEGEL

George Wilhelm Friederich Hegel has had a more widely extended and deep-seated influence upon the actual living life of the Nineteenth Century than any other man who can properly be called a philosopher, for, although in Hegel's many books which he wrote to expound his philosophy of pure intellect and the Absolute there is to be found very little which one could apply properly to the life of a tradesman, the outcome of that philosophy has been very practical and is still with us.

Hegel attempted to define, in the course of his ponderous volumes, what he understood by the Absolute; in fact that was the test of his whole system. But he does not seem to have explained it for any but a few, even among the intellectual. Hegelians of to-day have small influence upon the world at large. But it is not in his metaphysics that Hegel lives to-day. It is in the practical, political, and economic results of the movement which he set up in Europe that these effects are to be seen.

It is a fact that it was the influence of Hegelianism upon two young, ardent, and intensely philanthropic Germans that produced what is known to-day as Socialism. When one reads the three-volume work of Karl Marx, *Capital,* and considers the matter-of-fact manner in which he deals with matter-of-fact things; his theories of production, distribution, wages, value, and other questions which are purely the material of that very dry science, Economics; or when one reads the works of Ferdinand Lassalle or regards his mighty efforts at political and economic revolution; when we consider the Red International Workingmen's Association or look over the celebrated *manifesto* of the Socialists; or when we view the political condition of Germany to-day, where the Socialists are the strongest party in the Empire, with a tremendous influence in the Reichstag; when we contemplate the almost interminable mass of literature upon Socialistic subjects with which the world has been latterly covered in almost all the languages of Europe; when we think of these things and learn that they are the outgrowth—the direct outgrowth—of Hegel's genius, the mind seems willing to reject the notion and refuse to believe it. Yet this is the sober truth.

To the "Young Hegelians" (chiefly Marx, Lassalle, and Bernays,) alone can be attributed the first definite formulation of Socialistic doctrines, and the first practical or effectual attempt at their propaganda. Were there no reason but this, Hegel should be to us an interesting man. He was born on the 27th of August, 1770, at Stuttgart. His father was an officer in the civil service of Würtemberg, and he came from a long line of Carinthian and Swabian ancestors, who had long occupied a very respectable position in the bourgeoisie. He, like his friend, Schelling, had the precocity that indicated what he was to be in later life. It is said that when he was in his early teens his gravity was so great, his mind busied itself with such profound topics, and he felt so concerned about matters with which people in general, who are much older, care very little, that he was given the name of "the old man." Very early he entered the University of Tübingen, and at once struck up an intimacy with Schelling. The two youthful philosophers lived and slept in the same room, and this early friendship gave promise of something more lasting and permanent than that which followed, as we have seen. When he took his degree at Tübingen Hegel accepted a position as a private tutor in Switzerland. There he remained for sometime, and then sought a more agreeable connection of a similar kind at Frankfort.

His father died in 1799 and the small fortune thus left was taken by Hegel to Jena, where he set himself up in a condition of ease with regard to income that he had never known before. With a living assured him, he could afford to go into the university as a privat-docent without too much dependence upon such attendants as he might be enabled to get. While at Jena Hegel became acquainted with Wieland, Goethe, and Schiller. These distinguished men lived at Wiemer, and about them clustered the most brilliantly intellectual society that Germany, or even the Continent in that time, could afford. That society gave an open door to the young tutor of the university, and it is readily imagined that this period of his life was one of unalloyed joy.

Even as early as this time Schelling had evolved his mystic philosophy, which was founded upon the Idealism and the Mysticism of Fichte. Hegel fell in with the new ideas with great enthusiasm, and the two young men worked together in the most congenial way; Schelling helping Hegel to the best of his ability, and Hegel suggesting to Schelling thoughts which no doubt the elder of the two had no hesitation in using or at least in developing. He remained at Jena until 1807, having meanwhile published an essay on the *Difference Between the Systems of Fichte and of Schelling.* He and Schelling published a philosophical journal, Hegel continuing his lectures in the big school. It would seem that about this time he turned his attention to politics, for he was offered the position as editor of a political journal at Bamberg, which he accepted, but soon relinquished. The gymnasium at Nurnberg made him its principal in 1808. There he remained for eight years, teaching religion and philosophy, when the University of Heidelberg offered him a subordinate chair in his specialty. Two years later Berlin called him to its chair of philosophy, which had not been filled since the death of Fichte.

Of his style of lecturing Rosenkranz said: "Utterly careless about the graces of rhetoric, thoroughly real and absorbed in the business of the moment, ever pressing forward and often extremely dogmatic in his assertions, Hegel enchained his students by the intensity of his speculative power. His voice was in harmony with his eye. It was a great eye, but it looked inward; and the momentary glances which it threw downward seemed to issue from the very depth of Idealism, and arrested the beholder like a spell. His accent was rather broad, and without sonorous ring, but through its apparent commonness there broke that lofty animation which the might of knowledge inspires, and which, in moments when the genius of humanity was abjuring the audience through his lips, left no hearer unmoved. In the sereneness of his noble features there was something almost calculated to strike terror to the beholder. A peculiar smile bore witness to the purest benevolence, but it was blended with something harsh, cutting, sorrowful, or rather ironical. His, in short, were the tragic lineaments of the philosopher, of the hero whose destiny it is to struggle with the riddle of the universe."

In this description of Hegel's personality and of the power he had of winning men over to his peculiar views, even though at times they did not know what those views were, is found the key to the almost incredible phenomena of the rise of Modern Socialism under the influence of his burning thought.

Hegel died in 1831 of cholera. It was remarked as a peculiar fact that the disease affected his brain more than it did his intestines.

We have said that Hegel's philosophy is very much like that of Schelling in so far as either can be understood. Schelling taught that the proper object of human thought was Unconditioned truth. Hegel taught that it was Absolute truth. The Absolute, if it means anything in Hegel, can be illustrated in this manner. Let us suppose five men, each of whom is capacitated in only one of his senses. Thus, the one with the optical sense could see; the one with the olfactory sense could smell; the one with the gustatory sense could taste; the one with the auditory sense could hear; the one with the tactile sense could understand the sensation of touch. The sensations in all of these men would be, it is clear, different. The intellect of each would know only the peculiar sensation which dwelt in him. He would have one sensation, and that "oneness" would be the common element of all. And that "oneness" is the Absolute. This "oneness" is intelligible to all and is alone the object, the body, the material, and the substance of the function of thought. This idea is developed through Hegel's philosophy; or, rather, let us say, that in all of his works he attempts to develop it. His two important categories are Number and Being. In a word, it is doubtful if any man has understood the philosophy of Hegel, and it may be doubted if he understood it himself. To our view the most important result which has flowed from the life and the activity of this truly great and truly profound, if obscure and mystic man is the marvelous and protean scheme of life which has been called Modern Socialism.

CONDILLAC

Etienne de Condillac deserves a place in the catalogue of great philosophers for the reason that he was the founder of the French Sensational School, which has a permanent place in the history of speculation. He was, as his name indicates, a nobleman, but his family was poor. Shut out from the possibilities of success in political life, which probably he had entered had his wealth been commensurate with the position to which his birth entitled him, he turned his brilliant mind to the consideration of philosophical and religious questions. This led him to go into the church, but it may be said that if there was ever abbe who had no faith in the theology and philosophy that was currently taught by the church, that abbe was Condillac.

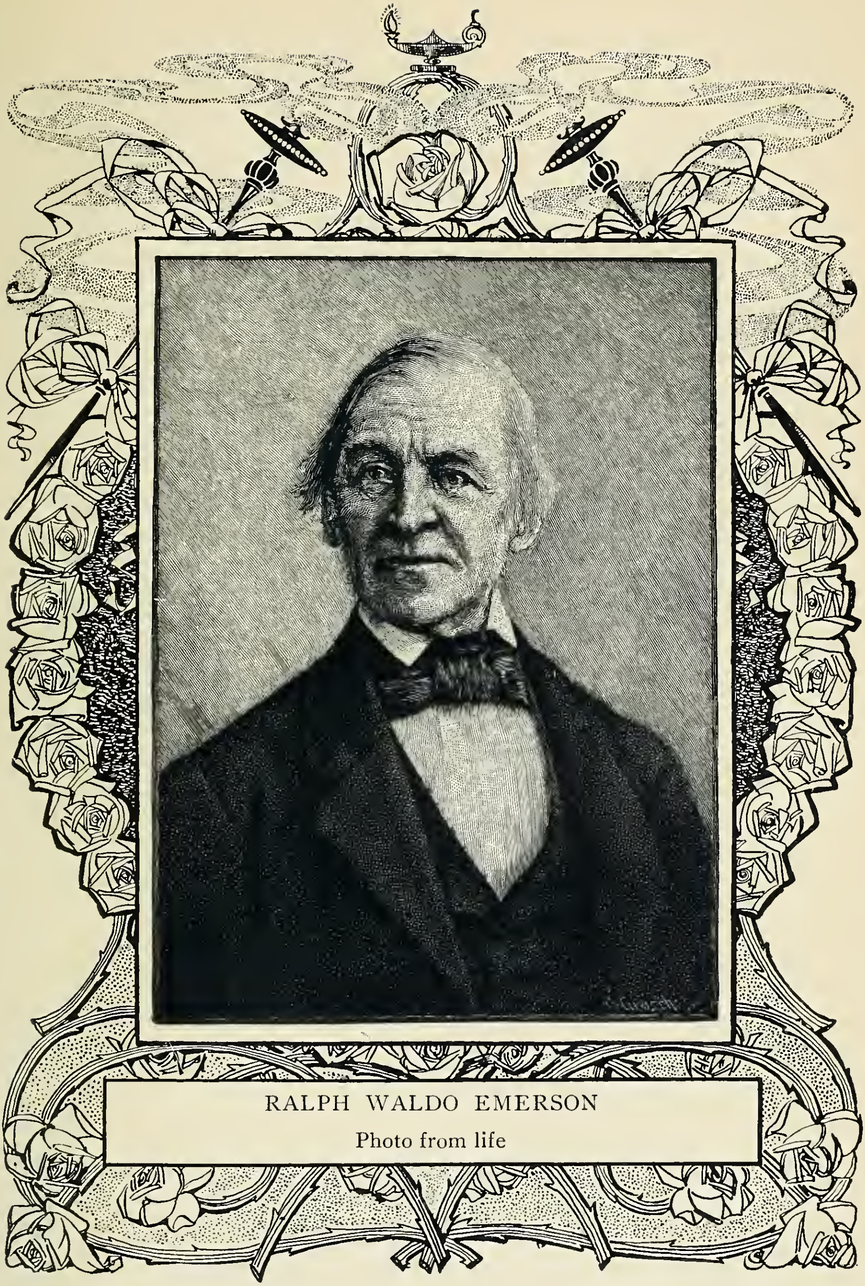
His life is possibly the most uneventful of all of those we have thus far considered. It was spent altogether in the privacy of his study, where he read, meditated, and wrote. He had, as a youth, been attracted by Rousseau, with whom it is said he became well acquainted and whose affection he won. The only position of importance that he seems to have held was that of tutor to the grandson of Louis XV, the Duke of Parma. It was for the benefit of this distinguished pupil that Condillac wrote many of his books. His chief work is *Traité des Sensations.* He was born at Grenoble in 1715, and he died in 1780. In 1768 he was elected a member of the French Academy, but it is not known that he attended any of its sessions.

Condillac was the representative in France of the

Lockean philosophy, but he progressed further than Locke and taught doctrines which Locke certainly would have repudiated. Locke held that knowledge consisted of two elements—the element of sensation and the element of reflection. Condillac improved this by throwing out reflection altogether and reducing knowledge to pure sensation. Thus it is that his school is properly and precisely named the Sensational School. His principle is very briefly, but very clearly laid down in his prefatory remarks in *Traité des Sensations*. "The chief object of this work," he says, "is to show how all our knowledge and all our faculties are derived from the senses, or to speak more accurately from sensations."

In this we have a distinct departure from Locke's theory, which counted as the great modifying element of thought the action of intelligence or reflection. To Condillac's mind human understanding derives its knowledge from one source; that is the senses. The famous aphorism, "Nothing is in the intellect which was not first in the sense," he attributes to Aristotle, and continues: "Immediately after Aristotle comes Locke, for the other philosophers who have written on this subject are not worthy of mention. This Englishman has certainly thrown great light on the subject, but he has left some obscurity. All the faculties of the soul appeared to be made to be innate qualities, and he never suspected they might be derived from sensation itself."

To quote him again: "Locke distinguished two sources of ideas—sense and reflection. It would be more exact to recognize but one; first, because reflection is in its principle nothing but sensation itself. Secondly, because it is less a source of ideas than a canal through which they flow from sense. This inexactitude, slight as it may seem, has thrown much obscurity over his system. He contents



RALPH WALDO EMERSON

Photo from life

himself with recognizing that the soul perceives, thinks, doubts, believes, reasons, wills, reflects; that we are convinced of the existence of these operations because we find them in ourselves, and they contribute to the progress of our knowledge; but he did not perceive the necessity of discovering their origin and the principle of their generation—he did not suspect that they might only be acquired habits; he seems to have regarded them as innate and he says that they may only be perfected by exercise."

These quotations serve to show the leading principle of Condillac's scheme. He can be said to have improved upon Locke, inasmuch as Locke had improved upon those who had gone before him, with the exception of Hobbes, for Locke reduced knowledge to the two elements of sense and reflection; whereas Condillac, rejecting reflection and leaving sense only, took the one step by refraining from which Locke saved himself from the charge of pure materialism.

EMERSON

The system which was founded by Kant was called Transcendentalism. Ralph Waldo Emerson called *himself,* a Transcendentalist and the ideas which he developed in the promiscuous and disconnected writings which he left behind have been called Transcendentalism, perhaps through courtesy, by others. It may be truly said that Emerson is the only philosopher that America has been able to produce thus far. Philosopher he was in the Greek sense rather than in the modern sense. In fact, Emerson has been happily characterized as having a Greek head upon French shoulders.

If we accord to Aristippus, to Epicurus, to Diogenes of Sinope, and to other ancients, the title of philosopher, we are scarcely justified in restraining Emerson from sharing the honor. Emerson left no system. We can hardly say that there are any "Emersonians." He did not develop a method. He left no systematic attempt to solve the origin and the destiny of the universe and of man. His thoughts were embodied in unconnected essays, in poems and in lectures which were afterward published in book form. But that Emerson was a thinker few will be able to deny. He was born in 1803 at Boston, and died in 1882. Entering Harvard College at a very early age, he took his degree from that institution. He studied for the ministry of the Unitarian church and took charge of a congregation in Boston. He was not long destined, however, to fill the function of a religious preacher or teacher, owing to certain changes in his opinions concerning essential doctrines. Withdrawing from the church, he retired to a farm in the neighborhood of Concord, and there he spent the remainder of his life, writing, thinking, and poetizing, with now and then the diversion of a lecturing tour, until his death. The only "school of philosophy" which America can really be said to possess is that which is known as the "Concord School of Philosophy," and among those who delight in metaphysics or philosophy of any kind, that name is almost as familiar as many of the other great schools founded in more ancient times.

It is a fact that honored though he is in his own country, Emerson is far more widely known and far more keenly appreciated in England than he is in the United States. A distinguished English writer said of him, while Emerson was still alive, that although he was "a kind of Plotinus-Montaigne, uniting the shrewd wit of the Gascon with the golden dreams of the Egyptian, he yet must chiefly be estimated as an American, whose works are natural growths from the soil of a new world, springing into life with native grace and power, and not predetermined either in form or substance by the fashion of ancient conventionalities. The peculiar position of America, where civilization and barbarism meet upon the boundaries of realms unconquered by man, naturally favors the growth of a genius like Emerson's, which raises again those fundamental problems of human thought which struck the first denizens of the earth; while questioning the universe with the childlike simplicity of the earlier sages, at the same time meditates, balances, and judges with tact and shrewdness learnt from the ways of a world no longer in its infancy.

"The comparison usually drawn between Emerson and Carlyle, entirely overlooks these peculiar native characteristics of his genius. Living in the same era, and both demanding a return from its outward shows to their own realities; both despising the marshaling of free minds into regiments, and the converting of education into a mere platoon exercise of accustomed movements; both overwhelmed with intense consciousness of the mysterious bounding all human knowledge, and standing face to face with the same infinite problems—there must necessarily be various points of contact between the free lines of their independent thoughts.

"But Emerson is not an American Carlyle. The music of the winds sweeping through his native forests is heard in his works. As a citizen of a new republic he stands like an inhabitant of the elder world nearer the portals of the dawn of time, while Carlyle is more oppressed with the weight of forms established by the authority of Centuries.

"The poet Lowell broadly indicates the difference between the two men as that between Fuseli and Flaxman—the one paints bundles of muscles and thews, the other draws lines straight and severe, a colorless outline. The generalities of Carlyle, notes the same poet, require to be seen in a mass—the specialties of Emerson gain by enlargement. The one sits in a mystery and looks around him with a sharp common sense, the other views common sense things with mystical hues; the one is more burly, the other rapid and slim. The one is two-thirds Norseman, the other half Greek."

As Emerson occupies a unique position in this volume, and as we have said, he is the only thinker produced by the United States to whom can be truly accorded the title of philosopher, it might be well to let us Americans look at him through the eyes of his foreign critics. The writer we have already quoted continues:

"He is a thinker in the same sense in which Beethoven was a musician; it is evident on the first glance that Emerson seeks to solve the riddle of the universe for himself, and is content with no traditional answer. Why should we not enjoy, he asks, an original relation to the universe? Embosomed for a season in nature, whose floods of life stream around us and through us, why should we grope among the dry bones of the past, or put the living generation in masquerade out of its faded wardrobe? He insists on man's individuality, and protests against the crushing our separate beings into indolent conformity with the majority. Let a man know his worth and keep things under his feet. Let him not peep, or steal, or skulk up and down with the air of an interloper in the world which exists for him. Beneath opinions, habits, customs, he seeks the spirit of a man. The only thing in the world, in fact, is the soul—free, sovereign, active. The history of the world can only be understood as it is lived through our own spiritual experience. It is no slight sign of the greatness of the thinker, that he can leave the amenities of the city and the quietudes of the forest to stand upon the anti-slavery platform. The subordination of the pursuit of a thought to the love of a duty thus manifested, may be accepted as the crowning lesson in the life and works of Emerson."

Soon after the death of his first wife—they had been married but three years—the American philosopher paid a visit to Europe, traveling through France and Italy, and afterward to England. There he met Wordsworth, Coleridge, and Carlyle. The friendship between the last named writer and Emerson was deep and touching. On his return to America he took up his residence at Concord and then was it that he founded his school. He was married again in 1835, and for fifty years he lived a life that can be almost compared with that of Epicurus. He devoted himself to study, meditation, the writing of his essays, the preparation of his lectures, horticulture, and other such occupations as naturally suggested themselves to one of his way of living.

In 1836 the "Transcendental Club" sprang to being, and in the same year there issued from the press Emerson's book *Nature*. He became a contributor to *Dial,* which was the special publication of Margaret Fuller, and which lasted for four years. Returning to England in 1847, Emerson appeared upon the lecture platform in London, Manchester, and other cities, and in the following year he paid a visit to Paris. It is hardly necessary to touch here on the part he played in the great movement for the abolition of slavery in the United States. In this he showed the courage that is born of true wisdom and the high ideals that are really transcendental, if anything deserves that name.

If there is any writer in the whole range of ancient or modern literature who deserves the name of optimist, Emerson is the man. Nothing could dash his supremely sunny spirit. No cloud was dark enough to cast a shadow upon the brightness of his intellect. He bade men to hope when there was small possibility of hope. He clung to his ideals in spite of realities that were calculated to supremely depress the most hopeful. When men condemned the strange and materialistic doctrines which were being freshly taught by the growing science of the Nineteenth Century; when supersensitive religionists were sure that the whole fabric of their faith was being pulled down about their heads by the men with the microscopes and the laboratories in Europe; when achievements of modern investigation were being denounced from many prominent pulpits over all the world, Emerson was the only man of his kind who gladly hailed the new spirit of investigation and accompanied it, as Professor Tyndall said, with the riotously joyful dance of a Bacchanal. To sum up his "philosophy" we may repeat his, probably, most popular saying, "Hitch your wagon to a star."

Emerson was above all an individualist. Going on his way through life, helping himself, depending upon the exertions of his own hands and brain for the goods of this world, and drinking from the deep well of faith which he had within his own being, he could not abide the doctrine of the socialist who looked to others than himself for his happiness in this life. To him the individual was everything; the soul was all. He spoke of "moral sentiment" to persons who could not in any manner whatever understand what he meant. If he is an idealist he is not the idealist of the schools. If he is a transcendentalist, he is a transcendentalist of some kind that has not yet been clearly defined, either by himself or by any of those who followed him. He did not launch out into any systematic or clearly thought-out speculation as to mind, and time, and space. It is true he sometimes thought of these things, but he was careful not to attempt to draw out from the tangle of their subtlety any concept which he could advance as his own.

His writings, for the most part, are beautiful words. When we attempt to analyze them we find that it is impossible to bring out of them any continuity of thought or any theory of things beyond those which are to be found in the caroling of a bird. Philosopher, therefore, we can only call Emerson by courtesy; or else place him in the class we have already indicated among the thinkers of Greece.

In 1872, Emerson's house was destroyed by fire, the result of which was a great shock to his mind. To recover his health he went for a short time to Europe, but his memory failed rapidly, and it may be said that he never recovered the vigor or the clarity of his intellect. The serenity and peacefulness of his life may be alone compared to those of the life of the garden-philosopher, who taught that in repose of mind alone could man find pleasure.

AUGUSTE COMTE

COMTE

In reviewing the philosophers we have already treated in this volume the reader will remember, perhaps, that the history of philosophy is marked by three prominent men. Excluding the speculations of Buddha, and confining ourselves to the development of thought in Europe, we have observed that with Socrates came a limited reformation of speculation. Socrates attempted to found a method, and in the history of Greek thought he certainly deserves the credit of having shown the absolute necessity of definitions, if men desired to accomplish any great results in their attempts to explain the phenomena of nature and of mind.

Socrates demolished all the systems that had preceded him with his terrible questioning. Aristotle, coming almost directly after Socrates, tried to build upon the ruins which Socrates had made, by suggesting the method of Induction. This was distinctively a long step and a clear gain to thought; but Aristotle, as we know, although he had a very useful instrument with which to build, did not have the material to uprear the structure that he planned. After Aristotle, who was most unfortunate, in that his followers did not make use of the method which he suggested, or try to carry forward the work he so well began, the history of speculation in Europe ran through all the phases of thought we have considered until philosophy died in the shadow of the pyramids.

For centuries European intellect lay dormant, to be aroused only with the rise of the schoolmen of the Middle Ages. All systems had thus far failed. With the coming of Bacon a new light broke upon the mind of man, and with Bacon began the movement which has given us practically all the results that modern science has now achieved. Bacon marked the third epoch, if we may, for the sake of convenience, use this very unsatisfactory term; but the philosophers who followed Bacon, although they did much to bring about a settlement of the great dispute, did not thoroughly grasp the Baconian method. We say this with the single exception of David Hume, and, as we have found, when he applied the Baconian method to metaphysics. he utterly destroyed the power of metaphysics to do anything for human knowledge.

Our best judgment, when exerted upon the results that have been left by the German philosophers, will tell us that all these systems, likewise, have been failures. They could accomplish nothing, for that which they sought to accomplish was the impossible.

Ridiculous as many of the followers of Comte's philosophy have made the name of that great man, yet we must go to Comte to find the fourth and the last epoch in European speculative thought. This remarkable but unfortunate man was born in 1798 at Montpellier. His father was an officer of the Government, and his mother, who was possessed of a strong mind, was a devoted Royalist and an intense Catholic. Comte attended the Lyceum at Montpellier and very soon attracted attention for his remarkable studiousness, even when he was but ten years of age. He paid but little attention to the games of his fellows, but spent his time with books and in his study. He showed special proficiency in mathematics, and won entrée to the Polytechnic School at Paris, when he was one year too young to be admitted to that institution. His early life in Paris was one of a struggle for existence, and a poor existence he had with even such excellent talents as were his. He taught mathematics and now and then earned a few pennies in other occupations.

It was in 1818 that Comte came in contact with the celebrated Saint Simon. This philanthropist became warmly attached to the industrious, ambitious, and enthusiastic young Frenchman, and for six years he gave him the privilege of working with him, in the meantime helping Comte to such funds as he stood in need of. In 1824 the young and the old friend had a serious quarrel and Comte retired. The followers of Saint Simon always held that Comte owed to his patron much of the material out of which he constructed his Positive Philosophy, but this has been as vigorously denied by Comte's followers and was denied by Comte himself. It is probable that the founder of the Positive System owed nothing to his early benefactor.

The life of Comte is pathetic in every way. He himself refers to the one incomparable year of his life. That was the year which he spent in the company of Clotilde de Vaux. He was forty-seven, and at the very top of his fame as a man of science and a philosopher. She was a beautiful woman of thirty, of winning character, able and discerning mind, thorough education, and that tenderness of character and feeling which was calculated, above all, to appeal to the supersensitive mind of the philosopher. Her husband had been condemned to prison for life. Her position was one of the utmost sadness, and what she needed more than all was a sympathetic mind and a kind friend. In Comte she found both of these and she repaid his sympathy with gratitude and admiration. But the philosopher loved her, and it is hard to say what might have eventuated from this connection had not the lady died one year after the two first met. In the company of this woman Comte spent the only time of his life that was blest with any sunshine. The remainder of it was dark, stormy, full of disappointments, complications, sorrows, and irritations, through which it is hard to understand how he ever emerged whole.

In 1825 Comte was married to Caroline Massin. The letters which the pair have left throw a green light upon their domestic affairs. They were anything but happy. Her disposition was not of that kind which it should have been to match with the purely intellectual one of the founder of the Positive Philosophy. Her letters to him are full of complaint, querulous, and are forever thrusting at him his neglect as a husband, and lauding her own great and spotless virtues as a wife. But in spite of these facts there is one episode in the lives of these two persons which brings out the character of the woman as that of one who, although she might have had her weaknesses, was equal to a supreme occasion when the occasion came.

In 1826 Comte had already outlined his scheme, which, he says, he had mastered "after a consistent effort of thought continued during eighty hours, with few and short intervals of sleep." While he was in the middle of his lectures on Positivism, his mind became unbalanced, so much so in fact, that it was necessary to place him under the care of a specialist in nervous diseases. For the best part of a year he lived in a hospital for the insane, but it would seem that the treatment he received there only served to aggravate the disease instead of removing it. In this plight a friend suggested that the scenes in the asylum themselves were the cause of the retardation of Comte's recovery, and suggested that he be taken by his wife and cared for in his own home. Madame Comte readily fell in with the suggestion, but the expected recovery did not come as rapidly as was anticipated. The reaction of Comte's release from the asylum was so great that he attempted to commit suicide by throwing himself in the River Seine. Happily he was rescued, and in a few months the quiet life of his own homestead and the tender ministrations of Madame Comte restored him to his full intellectual power and capacity. Comte now worked rapidly upon his Synthetic System, with such effect that in 1830 he was able to publish the first volume of his Positive Philosophy. Five years were spent in completing the second volume, three more years in finishing the third, three years the fourth, two years the fifth, and one year the sixth.

The fulfillment of this tremendous task, involving as it did the labor of intellect and hand, which he must of necessity have bestowed upon it, is nothing short of the incredible. It is all the more wonderful when we consider the fact that while he was working upon his system, reading the books necessary for reference and data, and doing his own writing, he continued to lecture at the Polytechnic School, a work which was a necessity for the earning of his livelihood. Even this support was taken away when, in 1844, he was dismissed from his post in the school because of certain offensive references which he had made to its officers in one of the volumes of his work. In 1842 Comte and Madame Comte agreed to separate permanently. In this strait John Stuart Mill, Sir William Molesworth, Grote, the historian, and some other eminent men of England, who had admired the work of the illustrious Frenchman, sent him a small purse for the relief of his immediate necessities. This Comte cheerfully received, but when he found upon the following year that it was not renewed he severely reprimanded his friends in England, as if he had expected that the gift was merely the first payment of an annuity which he probably believed would be extended throughout his life.

During the ten years which followed the death of Madame de Vaux, Comte struggled along with the world as best he could, engaging himself with literary work and producing a few unimportant volumes. During all this time his income never exceeded more than a few hundred dollars a year. In 1852 he published the *Positivist Catechism,* a not improper title for an exposition of his system, when the perfervid enthusiasm of some of his followers, not only in France but in England, will be recalled. On September 5, 1857, he died of pneumonia, which he caught while attending the funeral of a friend.

For an understanding of the philosophy of Comte it is necessary that we first understand what is meant by the word Positive. Any clear definition of the title of his philosophy was completely omitted from the six volumes in which he sought to develope it. The difficulty of arriving at a satisfactory definition of the word itself is therefore apparent, although it would seem that a thinker who undertook to reform all the philosophy and all the religion that was then in existence in Europe should have been very careful to have at least set forth in the beginning the meaning of the definitive term he used in the title of his book.

Professor Ward, who has been a very close and profound student of the works of the Frenchman, has written ingeniously as to the proper definition of the term. In the introductory chapters of his *Dynamic Soci-*

ology Professor Ward says: "Notwithstanding the attempts that are constantly being made, wherever it becomes proper to refer to the Positive Philosophy, to define the term *positive* in that connection, and notwithstanding the acknowledged ability of many of those making these attempts, and the fact that they are not generally open to the charge of incorrectness, it is nevertheless true that very few persons, who have not carefully followed Comte in his own works and paid special attention to this chief characteristic of them, have acquired an adequate comprehension of the true meaning and scope of this term as he himself has employed it. While it is not untrue that the leading notion of the word in a Comtean sense is contained in, and conveyed by, the word *phenomena,* and that the general idea of the positive philosophy is the study of phenomena wholly apart from both essence and cause, still this bald and technical form of definition falls far short of conveying to the ordinary intellect the intensely active and living idea which these terms excited in the author's mind, and which animate every page of that Koran of Positivism, *Philosophie Positive.* Derived from the passive root of the Latin word *put* or *place* (*ponere*), whatever may be called *positive* must have been placed in a definite *position.*

"The intensive notion that this position is absolute or removable is no more than frequently attaches to the words seeking definite signification in derivative languages. In popular language this notion is conveyed by emphasis, and as it always accompanies this word, it becomes of itself an emphatic word. It is never used by common people except in an emphatic manner, and with a special stress on the word. The philosophical application of the term simply conveys the intensive idea, without requiring any emphasis in its utterance. The exact idea, then, of 'positive' in the Comtean sense, is merely that which is *fixed* or established as certain truth. It is the real, the known, the tangible or sensible in nature. The positive may be briefly defined as that which really exists, that which is *positively* true—what *is*.

"It will be seen, therefore, that it does not differ from the scientific idea as commonly understood. Indeed, Comte employs the term scientific as the synonym of positive. Starting from the Cartesian idea of self as the only judge of truth, it assumes that there is something present when the senses so report; and, not stopping to discuss the correspondence of that something with the report thus made of it, the positive philosophy confines its investigations to those sense reports which alone can be known. The sum total of these reports to the senses constitute what are called phenomena, and with these and these only the positive philosophy deals. This, again, is simply the method of science."

Comte rejects metaphysics and theology totally. He would have none of them. He takes no accounting of causes either final or efficient, and in this latter he departs from the usual method of modern science.

He casts aside as perfectly useless hypotheses on which scientific investigators work out their experiments in physics, chemistry, and other sciences. He stops short with the phenomena and does not seek to go farther. Having rejected the utility of investigation into all causes, he thus deprives himself of the benefits, or of many of them, which flow from theory, and from experimentation whereby it is expected to demonstrate theory. He founds the science of Sociology by proposing to classify society or the races of man as simply the material of science, thereby at once rejecting all theological attempts at explaining the facts connected with man and nature which we see about us. He arranges the sciences in a hierarchy, all embraced in the Positive Philosophy, pointing out that all the philosophers who had come before him had failed to do this. In a word, he brings order out of the anarchy that had prevailed in European thought up to his time. All the sciences are but branches of this Positive Philosophy, in which he proposes to unite, coördinate, and correlate them all. He insists that prevision is the test of all knowledge, and subordinates his whole system to this particular concept.

His purpose is to show the dependence and the relations of all the sciences to one another, so that the results of the investigations in each separate science may be brought together and worked out into a complete and harmonious whole. This grand result with Comte is the desideratum of his system, and if this be so, and there is no doubt of it, one can readily see that neither metaphysics nor theology can enter in any degree into his thought.

When sufficient of the phenomena of a science are known to enable certain prediction, that science may then be said to be in a position to take its place first in the hierarchy of sciences. Therefore, we find Comte placing astronomy first, because astronomy is most certainly known of all. Next to astronomy, as judged by this criterion, would come physics, because although physics is not as yet as perfect as is astronomy, nor will it bear the test of prevision so severely, yet there are many things which it can certainly and positively predict.

Next to physics he places chemistry, and for the same reason. More remotely still will come organic chemistry, for in that science far less is known than in physical chemistry. In biology prediction is still less possible. The last of the sciences, sociology, is the most complicated and the most uncertain of all. Predictions in this field are more difficult than in any of the others that have been considered.

This classification of the sciences has been criticised without end by almost all of Comte's commentators, and we find it a subject to which is given to-day the utmost concern by men who write upon sociological topics or upon science in general. In fact, the arrangement of the sciences into a pyramidal scheme will be impossible except upon the plan which was outlined by Comte himself, and this is clear when we give the matter a little thought. Comte proposes a hierarchy by placing first that science which has accumulated the largest number of facts, and which is most certain in its prediction, and most harmonious in its own arrangement. It will be seen that if all the sciences were as accurate and as capable of using prediction as is astronomy, there could be no hierarchy of sciences at all; for what science could we place at the bottom and what science could we place at the top? Attempts at reconstructing Comte's hierarchy, therefore, or of suggesting new ones, will in no wise further knowledge, for the reason that the sciences are constantly shifting their ground, some forging a little ahead of others, some leaping forward, and some possibly standing still.

Comte says that mathematics is not a separate science, but is the basis of all scientific work, and therefore he does not place it at the head of his hierarchy. The Comtean view of mathematics has been outlined at greater length in another part of this book without attention being called to the fact that it was Comte who first suggested this very positive, and as evident, truth.

The French philosopher suggests the law of evolution, and he is at great pains to elaborate the proper work of all the various sciences which he considers necessary as integral parts of his system. In treating of these branches he dismisses astronomy with comparatively few pages, and betakes himself to physics, which is the second category in his system. In going over this field he spares himself no effort to bitterly attack the physicists, who insist upon mixing up metaphysical conceptions with the order of nature. He has no patience with men who attempt to explain the phenomena of gravitation, electricity, heat, light, and other such. He will have none of the atomic theory. The wave theory of light he deems as a perfectly useless organ. In fact, all the explanations that men made of magnetism, electricity, gravitation, and other observed facts, Comte thrusts aside as worse than useless. These things he considers ultimate phenomena, beyond which the mind is incapable of going. He is careful to touch upon the various sub-sciences that he groups under physics, defining the functions of each of these and never losing an opportunity of vigorously denouncing all those who have attempted to explain the things they saw.

Biology Comte treats at some length, but this science, in his view, is at the best very obscure. For the wholesale condemnations he made of investigators who had preceded him, and who were then doing very good work, and building securely the foundations upon which the greater and newer science of biology was to arise, the French systematist has been severely condemned by his critics. He said nothing about psychology except to classify it under the general head of phrenology. This is at least remarkable. He made many errors, and his books are full of ridiculous assumptions and unwarranted assertions, and for these faults he has had to bear the full brunt. His advocacy of a scientific priesthood, after the fashion of the hierarchy of the Roman Church, was not begun until he was old in years and until long after he had finished his celebrated *Cours*. It is hardly fair, however, to condemn a man whose work has so largely modified philosophical investigation and speculation as has Comte's, for the vagaries of a mind which had spent its best strength in the development of a truly noble effort to do something for the human intellect.

The broad suggestions which Comte made have not yet been improved upon, and the fact that his hierarchy of the sciences is still in dispute and is still upheld by some men who are eminent in science, should be sufficient to set aside all unmanly and finical quibbling about the errors, numerous though they were, which he made. He occupies a place in the history of philosophy which is second to none, except perhaps that of Lord Bacon. He attempted to philosophize, using the Baconian Method, and the only philosopher who has followed him and who can at all be compared with him uses the very methods which Comte used, with probably no greater success at founding a solid and sure system than had his French predecessor. That philosopher is Herbert Spencer. The controversy in which so many eminent minds have been interested concerning the relations of Spencerian thought to Comtean thought is one of the most interesting in all the literature of philosophy. Comte clearly preceded Spencer. It is true that Spencer has not fallen into the errors that led the hypersensitive and much suffering French student away from the clear lights of science, but it should also be remembered that the life of Spencer, as compared with the life of Comte, was one of comparative ease, peace, and of happy and congenial associations.

Comte thought much and suffered much. At no time in his life did he have sufficient money to enable him to devote his whole attention to the one purpose of his existence. His books brought him no money; he had few friends. His domestic affairs were most unfortunate. He suffered from poverty and at times hunger; from disease, disappointment, failure, and even insanity. It is really pathetic to fancy that the mind which could conceive the tremendous scheme outlined in the six volumes which Comte produced within the compass of a few years, should have been driven to thoughts of self-destruction.

His attempt was one of the noblest that man ever made. It was, with one exception, the highest effort of the human intellect; for it must be remembered that Comte was no idle speculator, who proposed a universal scheme of things, and a theory of all being by simply writing down speculations which happened to come into his brain without any foundation in fact. He excluded from his problem all those things with which philosophy before him had dealt. He denied to himself the privilege of explaining the finite and the infinite. He used no words, or but few of them, which did not have a definite and clear meaning to his mind, and which could not be understood by the simplest of persons. What he proposed was to found a philosophy which would unite within itself all the definite, certain, and proved knowledge which man had come to by observation and experience into one complete, harmonious and perfect whole.

The extent of that purpose was alone sufficient to defeat him in his mission. Comte could no more do what he proposed to do than could Aristotle bring out of his method of induction the results which modern science has achieved by its use. It is not probable that

Comte's plan of a philosophical system can ever be realized. It has been carried forward somewhat by the only other man who deserves to be ranked with him, but if he has not fallen as far short as did the illustrious Frenchman it is only because he had more time, more patience, and more actual data to work with than did the founder of Positivism.

In no matter what light we regard the work of Comte, we can regard it only in a spirit of commendation and praise. He wrought well. It was impossible for him to have that detailed knowledge of the various sciences which he included within his scheme that was given to the celebrated evolutionist of England. But he used the materials that were in his possession, or that he could readily acquire, with as much wisdom and as much genius as it was in him to do. The unfortunate position which Comte occupies to-day is altogether due to his intense nature, his intolerable dogmatism, and to his boundless desire to bring everything within the limits of a scheme of thought of which he was himself by no means the master.

SPENCER

"Not as adventitious will the wise man regard the faith which is in him. The highest truth he sees he will fearlessly utter; knowing that, let what may come of it, he is thus playing his right part in the world—knowing that if he can effect the change he aims at—well; if not—well also; though not *so* well."

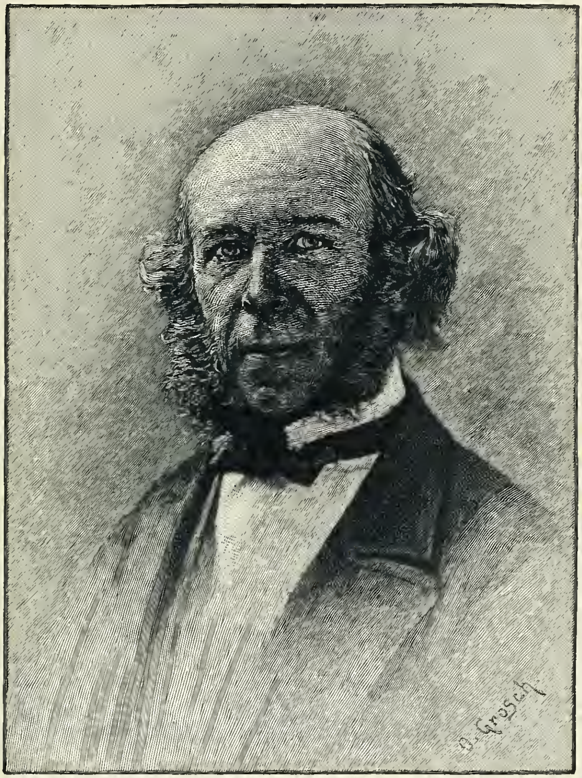
Judged by this standard, which is stated here in his own words, Herbert Spencer is certainly the wise man he speaks of; and the world at large, or at least the best and most discriminating part of that world, has no hesitation in pronouncing him the wisest man of this age, and one of the wisest if not still *the* wisest of all ages in the history of Man's intellectual progress.

We shall undertake in this section to explain the philosophy of Herbert Spencer and to give some account of his life, although of biographical details there must necessarily be a paucity; for Spencer's life and Spencer's work are one. He is the last of the philosophers; his system differs from those of all the others we have considered, and he himself differs from all the philosophers whose names have been mentioned, in that he is yet alive.

Perhaps the intellectual influence of no man has extended as far among those who have scarce heard his name as has that of the Apostle of Evolution. His writings have seriously modified the thought of many learned divines who, after much shifting of opinion, have at last unconditionally surrendered to his arguments. Principles he has discovered and announced are now familiar to persons who never read a line of his works, and to many who know not that he ever lived. Many of his terms are household words with men who have no conception whatever of the source of them. His doctrines have been preached from pulpits and taught from lecture platforms and seldom has just credit been placed where it is due. Unbidden, he has entered the domain of special sciences and has forced the specialists to admit that he has been able to make valuable and original discoveries. And above all, there is no man, living or dead, who, among writers on the subjects he has discussed, has so many slavish imitators as he.

The philosophy of Spencer, when carefully considered, will give pause to any man who is capable of deep thought. He is received with attention and admiration by all who are willing to listen to a message conceived in the most conscientious of minds, and delivered in words that are considerate of all cherished opinions. Regarded by his avowed followers as unapproached and unapproachable in the realm of thought, he is praised, and warmly praised, by those who do not adhere to all he teaches and by those who are not convinced that he has been successful in doing what no man has yet done—establish a true system of philosophy.

Whether we agree with him or not, in the main, we cannot but admit that Spencer is the supreme conqueror in the world of intellect in this day. In the wide range of that all-inclusive system of his—The Synthetic Philosophy—he has solved many obscure problems in many of the sciences; he has made clear to men the origins of customs and arts and industries and institutions which, but for him, had lain in the darkness where he found them; he has probed into mysteries which had been ever tacitly accepted *as* mysteries by thinking men, and he has found the secret cause that lay concealed at the bottom; he has



HERBERT SPENCER

Photo from life

undertaken the task of presenting to men a system of ethics which, if accepted and lived out, will make men better and juster, gentler and nobler. And all this without once offending the most devotedly cherished belief or seeking to do more than that high duty defined in the words we have quoted.

It is to be hoped that we will be able to interest the reader in the philosophy of Herbert Spencer. It is pleasing to know that a very large—by far the largest—part of that philosophy is open to any intelligent person who will but study it; that it is written in modern English and in a style more clear and simple than that of any other writer in this field; and that it is written for the world in general rather than for a *coterie* of a few minds engaged in the subtleties of metaphysics. These are the reasons, probably, why his books have so large a sale among those who read the English language.

Spencer was born in 1820 at Derby, in England. His father was a teacher of mathematics and his uncle was a highly cultured Congregational minister, who was noted for the extraordinary gentility of his character and the good work he wrought among the helpless poor. The founder of the Synthetic Philosophy was not educated in any school or college, but was taught by his father and his uncle—a fact which seems to have had somewhat to do with his opposition to public education and his extreme views on the subject of education in general.

When he was seventeen years old he undertook to learn the profession of civil engineering and showed splendid capacity for that work. Fortunately for the world, he could find little employment—although he practiced engineering for a few years with marked ability—and he was compelled to turn his attention to other pursuits. A way was opened to him in literature. He had already, indeed, made his debut in that line by several essays published in the *Architect's Journal* and in the *Civil Engineer.*

At the early age of twenty-two, therefore, we find Spencer appearing in the *Nonconformist* as the author of a series of articles *On the Proper Sphere of Government.* This fairly launched him in literature, and he occupied thereafter several important editorial positions, among them the editorship of the London *Economist,* the *Westminster Review,* and the *Edinburg Review.* He did not sever his journalistic connections for many years, but he was meanwhile meditating the ambitious scheme of thought which was afterward to be embodied in the ten volumes wherein he develops the germ of his system that was planted in his first work of importance, *Social Statics; or, the Conditions Essential to Human Happiness Specified and the First Developed.*

This work had a moderately large sale, and may be said to be the gospel of Individualism—Individualism, that is, as opposed to Communism or Socialism, although there is no writer who is more widely quoted by Socialists than is Spencer, and that, too, from this very work in which Communism is so severely and so ably combated. Some of the opinions expressed in *Social Statics,* notably the theological features of the work and his treatment of the land and woman's rights questions, were afterward eliminated by the author and the earlier editions suppressed. But the book in its present day form is, with these exceptions, precisely what it was when it first issued from the press, forty-eight years ago.

In 1855 appeared *The Principles of Psychology,* the most important scientific work in the line indicated in the title that had yet appeared in Europe. This work, which is a masterpiece of analysis, was the first to place psychology on a firm and sure footing and to give it its place among those sciences which have perfectly definite limitations and are capable of laboratory demonstration. Little has been done to improve upon Spencer's work in so far as the *principles* of the science are concerned. When it is considered that the author was but thirty-five when *The Principles of Psychology* was published, we need have but small wonder at the lofty heights to which Spencer attained in his more mature and in his old age.

The philosopher was now living in London, and already at work upon his system. In 1860 he had completely outlined the great task he had set himself—that of founding a perfectly new system of philosophy—and in that year he published a prospectus of the system, which is usually reprinted in editions of *First Principles*. The latter book followed the publication of the Psychology. The bare contemplation of the prospectus is sufficient to stagger the mind of any but a Spencer himself. For thirty-seven years he gave himself up to the work of filling the promise he thus made thirty-nine years ago.

He himself realized the stupendousness of the undertaking, and his only fear has ever been that he would die before it was finished. During all these years the boldest of the Evolutionists has been an invalid. He has said himself that he can scarce remember when he has had a night's sound sleep. The great work suffered delays. For days, months, and even years it languished. The progress was slow. But little by little was added to the gigantic structure until, in 1897, the last stone was laid. In that year was issued the third volume of *The Principles of Sociology*, and the life purpose of one of the world's most profound thinkers was accomplished.

This labor, involving, as it did, a range of reading that would seem impossible for any one man to cover, was pursued with little recreation or pleasure save the association of a few beloved friends. These were among the great ones of the earth, worthy the association of a Spencer. Early in his career Spencer met George Henry Lewes, the noted biologist and historian. At the same time he became acquainted with Mary Ann Evans (George Eliot), and these two became his life-long friends. Tyndall, Huxley, and Darwin were likewise congenial friends, and in the association of such minds as these the philosopher could find such comfort as was denied him in the contact with persons less capable of the appreciation of an intellect that towered so high among the growths around it.

A victim of insomnia and dyspepsia, the philosopher, with the mountain-weight of his work upon him, could scarcely be expected to lead that life which would most conduce to recovery and complete health. Once, it is true, he determined to travel. He had been long a student of social conditions in America. In many of his works he uses Americans and American customs and industries to illustrate his laws. His intimate knowledge of even household habits in this country is amazing. To America, therefore, he came when he had once made up his mind to go abroad.

This journey was a most distressing failure. Mr. Spencer's peculiar disposition abhors noise. It would be amusing, were it not so pathetic, to hear him in his philosophy citing the music of the Salvation Army as an example of outrage on men's liberty. The air, he says, may be polluted as much by noise as by foul odors.

What his suffering must have been when he reached New York and was engulfed in the roar of its granite streets may be well imagined by those who have sensitive nerves. He traveled as far as Chicago and returned forthwith to his quiet retreat in London, to leave it no more except for short journeys into the country.

His keen sensitiveness to noise, of any disturbing kind, is illustrated in an anecdote which, at the same time, is an illustration of his vast powers of deduction. He was once sleeping at a hotel in the country when he was awakened by the crowing of a cock soon after midnight. Mr. Spencer arose, dressed, and, going into the yard, securely bound the wings of the cock with his handkerchief. To crow with satisfaction, or at least with audible effect, the cock must flap his wings! Mr. Spencer slept the night in peace. We have all of us observed the flapping of the wings as a constant accompaniment to the crowing of cocks; but perhaps not all of us would think of the expedient that at once occurred to the mind of the greatest master of deduction the world has ever known.

Owing to this extreme ailment, Mr. Spencer has lived in the most complete seclusion for many, many years. It has been a long time since any visitor has been admitted to his presence. He has seen no one but his assistants, who have cheerfully and gratuitously given him such purely clerical aid as he found necessary in the completion of his system. Some very few exceptions, of course, must be taken to this rule, but the great Synthesist has lived a life, one may say, of utter solitude, alone with his work for the quarter of a century.

He shrinks from all ostentation, from all flattery, from honors of all kinds as the sensitive fern curls when touched by the hand. Titles of high degree have been laid at his feet. He has refused them all. The world's most honorable and famous societies of Science and learning have voluntarily made him their associate. He has uniformly declined all such distinction. Universities in every civilized land, and of all denominations, have conferred upon him their highest honors. He has quietly foregone each tender of this kind; and when any university has persisted in its course, Mr. Spencer has ignored its importunities. Professorships in the most noted schools of Europe have been offered him, but he has paid no heed to these earnest solicitations. Titles of nobility might have been his, but the bare thought of knighthood or lordship has been to his mind as repugnant as it has been pleasing to the minds of others.

He who would understand the motive that has prompted the philosopher to this, perhaps, unique course, may quickly know it by reading his works, especially *The Principles of Ethics.* That mind, which analyzed the motives of human conduct; which saw the origin of royalty and nobility in a far-off world of savagery and ignorance; which could lay bare the growth of professional and political institutions, and trace back to their primitive (and by no means pleasing) sources, the ways and words and fashions of mankind; which could see in the multi-colored pageant of life that streamed before it only the inexorable motion of that law of progress and evolution it had so well defined—such a mind could not, with such convictions, associate itself with any of these vain honors or participate in any of these glittering shows.

Thus he has lived—alone, it is true, but most certainly unworthy the criticism that he has lived unconcerned of men and engaged with problems outside the reach of humanity. This comment, made by Justin McCarthy in his *History of Our Own Times*, together with similar criticisms by the brilliant Irish author, serves only to disclose the critic's incompetence to pass judgment upon the work or the purpose of Spencer. Mr. McCarthy is the only writer of prominence who has adversely commented upon Spencer, and his attempt to summarize the Synthetic Philosophy proves beyond question that he has never read it.

It must be remembered that Mr. McCarthy is a purely *literary* writer, and his further criticism of Spencer's style only justifies us in the belief that he has totally misconceived the necessities of scientific diction. There is not a single writer in all the field of Science whose style is simpler or more perfectly suited to the purpose in hand than Spencer's, not even the luminous Darwin. So far as goes Mr. McCarthy's comment on Spencer's apathy to the concerns of men, we can but express our amazement. Surely Mr. McCarthy has not read Spencer's writings on ethical, political and religious topics, to say nothing of his singularly strong and living thought upon social and economic subjects and upon education. If these are not the concerns of men we must confess we are at a loss to know what *are* the concerns of men.

The last days of the philosopher are being passed in a revision of his *Principles of Biology,* a work that has drawn to itself the unstinted admiration of the specialists in biology themselves. He is likewise calmly facing the end of his life and making ready to leave a world which will appreciate him more and know him better when he is gone.

Having given to the life of Spencer as much space as our limits will allow, we can now regard his system. In doing this we shall have occasion to quote liberally from his work, *First Principles,* in which his entire *schema* is outlined. To save repeated references, it may be understood that all of these quotations are from this one work unless otherwise stated.

Spencer's purpose is to found a new system of philosophy. To do this he must reject all systems that have been hitherto excogitated, and replace them with something entirely different. He is not insensible of the difficulties of the undertaking, and he safeguards himself from the possibility of misinterpretation by iteration and reiteration of his principles.

Two fields, concerning thought, are presented to the mind. The first is the Unknowable, the second the Knowable. It is clear that Philosophy must have to do with the latter only, for it is folly for the mind to attempt to know the Unknowable. But here we are met with the necessity of definitions. What is the Unknowable? What is the Knowable?

An unceasing battle has been waged in all ages, he finds, between religion and science. In all religions, however crude, there has lain and now lies hidden a fundamental verity. So said St. Augustine. There must be then some abstract proposition in which religion and Science can find a common ground. In searching for this common ground the philosopher examines ultimate religious and ultimate scientific ideas and the grounds of their validity. Of ultimate religious ideas, such as creation *ex nihilo*, the necessary existence of a Creator or First Cause, the origin of the universe and its essential nature, he has to say that all such ideas are impossible of conception. We cannot *think* of matter coming out of nothing; we cannot *think* of a cause that was not in its turn caused again. But if we must suppose *some* cause, we are in as extreme perplexities, for this cause must be finite or infinite. The mind thus finds itself in a maze of contradictions and impossibilities. Spencer quotes freely from Mansel and Hamilton, and shows how even these profound metaphysicians could only succeed in forcing a dilemma upon the understanding.

Having satisfied himself that the ultimate ideas of religion are *unknowable,* he proceeds to do the like with the ultimate ideas of Science. In religion he finds that that there is some *Power* which manifests itself to the mind in religious forms of varied sorts. In science he finds a similar Power; for such ideas as the indivisibility of matter, infinity, eternity, the absolute, the unconditioned, the unlimited, although unthinkable and unknowable, yet are permanent facts of consciousness of which the mind cannot rid itself. Thus science and religion, when driven to their farthest confines, find themselves face to face on a common ground of an unknowable, inscrutable Power, manifesting itself to consciousness and known, if at all, only in the modes, or in the manner in which it thus does manifest itself to our perceptions.

Proceeding further, Spencer finds that all our knowledge is relative. That is, the mind can discern that one thing is like another or different from another. Certain states of consciousness tell us that what we call things bear to one another certain constant relations, and the perception of these relations constitutes knowledge. We find ourselves inevitably driven to the basic consciousness that the universe is divided into two categories, Self and Not-Self. This we must accept as a truth transcending demonstration. All lines of thought converge to the same conclusion, namely, that the Absolute, either in religion or in science, cannot be known. In this Spencer finds his reconciliation between religion and science. He says:

"Here, then, is that basis of agreement we set out to seek. This conclusion which objective science illustrates and subjective science shows to be unavoidable—this conclusion which, while it in the main expresses the doctrine of the English school of philosophy, recognizes also a soul of truth in the doctrine of the antagonist German school—this conclusion which brings the results of speculation into harmony with those of common sense; is also the conclusion which reconciles religion with science. Common sense asserts the existence of a reality; objective science proves that this reality cannot be what we think it; subjective science shows why we cannot think of it as it is and yet are compelled to think of it as existing; and in this assertion of a reality utterly inscrutable in nature, religion finds an assertion essentially coinciding with her own. We are obliged to regard every phenomenon as a manifestation of some power by which we are acted upon; though omnipresence is unthinkable, yet as experience discloses no bounds to the diffusion of phenomena, we are unable to think of limits to the presence of this power; while the criticisms of science teach us that this power is incomprehensible. And this consciousness of an incomprehensible power, called omnipresent from inability to assign its limits, is just that consciousness on which religion dwells."

This reconciliation of Spencer's between religion and science has been ridiculed by writers who would put religion out of the world altogether. But not a few deeply religious writers have accepted it, and it is possible that this acceptance will increase with time as science and religion become drawn more closely together as they are being drawn to-day. He continues:

"Thus the consciousness of an inscrutable power manifested to us through all phenomena has been growing ever clearer; and must eventually be freed from its imperfections. The certainty that on the one hand such a power exists, while on the other hand its nature transcends intuition and is beyond imagination, is the certainty toward which intelligence has from the first been progressing. To this conclusion science inevitably arrives as it reaches its confines; while to this conclusion religion is irresistibly driven by criticism. And satisfying as it does the demands of the most rigorous logic at the same time that it gives the religious sentiment the widest possible sphere of action, it is the conclusion we are bound to accept without reserve or qualification.

"Some do indeed allege that, though the ultimate cause of things cannot really be thought of by us as having specified attributes, it is yet incumbent upon us to assert these attributes. Though the forms of our consciousness are such that the absolute cannot in any manner or degree be brought within them, we are nevertheless told that we must represent the absolute to ourselves under these forms. As writes Mr. Mansel: 'It is our duty, then, to think of God as personal; and it is our duty to believe that He is infinite.'

"That this is not the conclusion here adopted needs hardly be said. If there be any meaning in the foregoing arguments, duty requires us neither to affirm nor deny personality. Our duty is to submit ourselves with all humility to the established limits of our intelligence; and not perversely to rebel against them. Let those who can believe that there is eternal war set between our intellectual faculties and our moral obligations. I for one admit no such radical vice in the constitution of things."

Having thus cleared the ground for a philosophy which, on the one hand shall satisfy religion, and on the other shall not conflict with the dicta of science, Spencer asks what shall be the materials with which this philosophy shall work. Philosophy, clearly, can only work with the data we find in the knowable, the relative. The highest and the truest philosophy shall be that philosophy which shall completely *unify* all the knowledge we have. For Spencer's definition we refer the reader to the opening paragraphs of this book.

Philosophy defined, we have now to do with the *data* of philosophy, with that knowledge—certain as any knowledge *can* be—the only knowledge possible to the human mind. This knowledge, as already hinted, is the knowledge of differences and likenesses between things, congruities and incongruities—*relations.* We know that a certain lump of matter is gold only because it is *like* other things our experience has always identified with gold, and because it is *different* from all other things beside. Apply this principle to all things—to the entire contents of the universe as we know them—and we have the material with which philosophy can deal, and the only such material. Spencer proceeds:

"Hence philosophy, compelled to make those fundamental assumptions without which thought is impossible, has to justify them by showing their congruity with all other dicta of consciousness. Debarred as we are from everything beyond the relative, truth, raised to its highest form, can be for us nothing more than perfect agreement, throughout the whole range of our experience, between those representations of things which we distinguish as ideal and those presentations of things which we distinguish as real. If, by discovering a proposition to be untrue, we mean nothing more than discovering a difference between a thing expected and a thing perceived, then a body of conclusions in which no such difference anywhere occurs, must be what we mean by an entirely true body of conclusions.

"And here, indeed, it becomes also obvious that, setting out with these fundamental intuitions provisionally assumed to be true—that is, provisionally assumed to be congruous with all other dicta of consciousness—the process of proving or disproving the congruity becomes the business of philosophy; and the complete establishment of the congruity becomes the same thing as the complete unification of knowledge in which philosophy reaches its goal."

We must assume, then, that the dictum of consciousness says that certain of its states are alike and certain of its states are unlike. The permanence of that consciousness of difference and likeness is the warrant for our asserting that likenesses and differences exist. In consciousness we find two currents running side by side, one now widening and pressing the other into a narrow stream and vice versa. The first of these currents is the whole category of sensation; the second is that of mental representations of these sensations—*sensations* and *ideas*. The one is vivid, the other faint. Out of this process comes the *product* of the supreme consciousness of object and subject, of self and *not-self, of Ego and non-Ego.*

"So much, then, for the data of philosophy. In common with religion, philosophy assumes the primordial *implication* of consciousness, which has the deepest of all foundations. It assumes the validity of a certain primordial *process* of consciousness, without which inference is impossible, and without which there cannot even be either affirmation or denial. And it assumes the validity of a certain primordial *product* of consciousness, which, though it originates in an earlier process, is also, in one sense, a product of this process, since by this process it is tested and stamped as genuine. In brief, our postulates are: An unknowable power; the existence of knowable likenesses and differences among the manifestations of that power; and a resulting segregation of the manifestations into those of subject and object."

After considering the forms in which the unknowable power manifests itself to us, and these are Space, Time, Matter, Motion, and Force, and defining the sense in which these terms are to be used, Spencer begins his induction by examining in detail the variations of these modes and preparing the way for the great generalization or *law*, the supreme conclusion to which his philosophy comes, and the conclusion which he teaches as being *completely unified* knowledge.

First, he says, we observe that matter is indestructible. This truth he shows forth by many illustrations that are already familiar to most intelligent persons. Next in order comes "the continuity of motion." No motion is ever lost, but motion is communicated to bodies other than the moving one which has come to rest. Another truth is that observed in the "persistence of force." This persistence of force, in all the wide realm of nature, is the truth that transcends demonstration, the point of agreement between religion and science.

"But now," Spencer asks, "what is the force of which we predicate persistence? It is not the force we are immediately conscious of in our own muscular efforts; for this does not persist. As soon as an outstretched limb is relaxed the sense of tension disappears. True, we assert, that in the stone thrown or in the weight lifted it exhibited the effect of this muscular tension; and that the force which has ceased to be present in our consciousness exists elsewhere. But it does not exist elsewhere under any form cognizable by us. On raising an object from the ground we are obliged to think of its downward pull as equal and opposite to our upward pull, and though it is impossible to represent these as equal without representing them as like in kind, yet, since their likeness in kind would imply in the object a sensation of muscular tension, which cannot be ascribed to it, we are compelled to admit that force as it exists out of our consciousness is not force as we know it. Hence the force of which we assert persistence is that absolute force of which we are indefinitely conscious as the necessary correlate of the force we know. By the persistence of force we really mean the persistence of some cause which transcends our knowledge and conception. In asserting it we assert an *unconditional reality without beginning or end.*

"Thus, quite unexpectedly, we come down once more to that ultimate truth in which, as we saw, religion and science coalesce. On examining the data underlying a rational theory of things, we find them all at last resolvable into that datum without which consciousness was shown to be impossible—the continued existence of an unknowable as the necessary correlative of the knowable.

"The sole truth which transcends experience by underlying it is thus the persistence of force. This being the basis of experience must be the basis of any scientific organization of experiences. To this an ultimate analysis brings us down, and on this a rational synthesis must build up."

A necessary conclusion from the persistence of force is that there must be persistence of relations among forces. Two bullets of equal weight, projected by equal forces, must travel equal distances. This law has no exception, and its truth is self-evident. But there is also observed a "transformation and equivalence of forces." This is an accepted truth of physics, and is demonstrated in all the natural processes we see going on about us. But it is also a truth in the biological, psychic, and social orders. It is therefore one of the data of philosophy. So also is the familiar truth preserved in the axiom, "action and reaction are equal and opposite"—a truth that is demonstrated in the everyday experience of every individual.

Remembering these things, we have now to consider "the direction of motion." The general statement that force follows the lines of least resistence or greatest traction, or more accurately, a resultant of the two, indicates the direction of motion. Spencer uses illustrations of familiar facts borrowed from physics, biology, psychology, sociology, and economics to show the truth of the law. This, then, is another datum of philosophy. But besides this necessity of the *direction* of motion there is also a "*rhythm* of motion." This rhythm *invariably* accompanies motion, although it may not be always apparent. Illustrations of the rhythm of motion are seen in the rocking of a vessel at sea, the waves of the ocean, the swaying of plants under the water, the vibrations of a musical string or of a wind instrument, the oscillations of railway trains, the hum of a sawmill, the jar given to the whole room by the pulsation of the heart, which we see in looking through a telescope, the undulations of light waves, the whizz of the bullet, the music of the surf, and a thousand other simple facts of nature. The rhythm of motion is an inevitable corollary from the persistence of force. Those who are familiar with such rhythm as have been here cited may not be so ready to admit that the phenomena of vegetable and animal life exhibit this law, nor do they so exhibit it manifestly. The pulsation of the heart is a complete rhythm. So is the process of breathing. But let us hear Spencer on this:

"Perhaps nowhere are the illustrations of rhythm so numerous and so manifest as among the phenomena of life. Plants do not, indeed, usually show us any decided periodicities, save those determined by day and night and by the seasons. But in animals we have a great variety of movements, in which the alternation of opposite extremes goes on with all degrees of rapidity. The swallowing of food is effected by a wave of constriction passing along the œsophagus; its digestion is accompanied by a muscular action of the stomach that is also undulatory; and the peristaltic motion of the intestines is of like nature. The blood obtained from this food is propelled not in uniform current, but in pulses; and it is aerated by lungs that alternately contract and expand. All locomotion results from oscillating movements; even where it is apparently continuous, as in many minute forms, the microscope proves the vibration of cilia to be the agency by which the creature is moved smoothly forward.

"Primary rhythms of the organic actions are compounded with secondary ones of longer duration. These various modes of activity have their recurring periods of increase and decrease. We see this in the periodic need for food, and in the periodic need for repose. Each meal induces a more rapid rhythmic action of the digestive organs; the pulsation of the heart is accelerated; and the inspirations become more frequent. During sleep, on the contrary, these several movements slacken. So that in the course of twenty-four hours those small undulations of which the different kinds or organic action are constituted, undergo one long wave of increase and decrease, complicated with several minor waves.

"Experiments have shown that there are still slower rises and falls of functional activity. Waste and assimilation are not balanced by every meal, but one or other maintains for some time a slight excess; so that a person in ordinary health is found to undergo an increase and decrease of weight during the recurring intervals of tolerable equality. Beside these regular periods there are still longer and comparatively irregular ones; namely, those alternations of greater and less vigor, which even healthy people experience. So inevitable are these oscillations that even men in training cannot be kept stationary at their highest power, but when they have reached it begin to retrograde.

"Further evidence of rhythm in the vital movements is furnished by invalids. Sundry disorders are named from the intermittent character of their symptoms. Even where the periodicity is very marked, it is mostly traceable. Patients rarely, if ever, get uniformly worse; and convalescents have usually their days of partial relapse or a less decided advance.

"Aggregates of living creatures illustrate the general truth in other ways. If each species of organism be regarded as a whole, it displays two kinds of rhythm. Life as it exists in all the members of such species is an extremely complex kind of movement, more or less distinct from the kinds of movement which constitute life in other species. In each individual of the species this extremely complex kind of movement begins, rises to its climax, declines and ceases in death. And every successive generation thus exhibits a wave of that peculiar activity characterizing the species as a whole."

These then are the data of philosophy; the phenomena involved in the indestructibility of matter, the continuity of motion, the persistence of force, the persistence of relations among forces, the transformation and equivalence of forces, the direction of motion and the rhythm of motion. Out of these phenomena does any general law arise which includes them all and from which any one of them may be deduced? Such a law does exist and Spencer addresses himself to the work of building up these phenomena into the *synthesis* which he calls "the Law of Evolution," and whence he derives the definitive name of his system. He remarks:

"But now what parts do these truths play in forming such conception? Does any one of them singly convey an idea of the cosmos, meaning by this word the totality of the manifestations of the unknowable? Do all of them, taken together yield us an adequate idea of this kind? Do they even when thought of in combination compose anything like such an idea? To each of these questions the answer must be—no.

"Neither these truths nor any other such truths, separately or jointly, constitute that integrated knowledge in which only philosophy finds its goal. It has been supposed by one thinker that when science has succeeded in reducing all more complex laws to some most simple law, as of molecular action, knowledge will have reached its limit. Another authority has tacitly asserted that all minor facts are so merged in the major fact that the force everywhere in action is nowhere lost, that to express this is to express 'the constitution of the universe.' But either conclusion implies a misapprehension of the problem.

"For these are all analytical truths, and no analytical truth, no number of analytical truths will make up that synthesis of thought which alone can be an interpretation of the synthesis of things. The decomposition of phenomena into their elements is but a preparation for understanding phenomena in their state of composition as actually manifested. To have ascertained the laws of the factors is not at all to have ascertained the laws of their co-operation. The question is not how any factor, matter or motion or force behaves by itself, or under some imagined simple conditions, nor is it even how one factor behaves under the complicated conditions of actual existence. The thing to be expressed is the joint product of the factors under all its various aspects. Only when we can formulate the total process have we gained that knowledge of it which philosophy aspires to."

All changes in things we see about us, that is, in aggregates of things, from the solar system to a blade of grass, have two phases, one a *constructive* process, by which the aggregate is built up; the other a *destructive* process by which the aggregate is broken down. The first he calls Evolution, the second Dissolution. All aggregates such as a man, a plant, a planet, a society, a nation, an animal, exhibit in their history these phases: birth, growth or development, decay, death, and dissolution. The ascending stage, is evolution; the descending stage, dissolution. The first may be also called concentration, the second diffusion. The history of the life-growth of a man from his birth to his death, and subsequent resolvement into the gases out of which his body was built up, illustrates this law.

The phenomena, generally presented by evolution and dissolution, he indicates as follows:

"An entire history of anything must include its appearance out of the imperceptible and its disappearance into the imperceptible. Be it a single object or a whole universe, any account which begins with it in a concrete form, is incomplete, since there remains an era of its knowable existence undescribed and unexplained. Admitting, or rather asserting, that knowledge is limited to the phenomenal, we have, by implication, asserted that the sphere of knowledge is coextensive with the phenomenal—coextensive with all modes of the unknowable that can affect consciousness. Hence, whatever we now find being so conditioned as to act on our senses, there arise the questions, How came it to be thus conditioned? and How will it cease to be thus conditioned? Unless on the assumption that it acquired a sensible form at the moment of perception, and lost its sensible form the moment after perception, it must have had an antecedent existence under this sensible form, and will have a subsequent existence under this sensible form. These preceding and succeeding existences under sensible forms are possible subjects of knowledge; and knowledge has obviously not reached its limits until it has united the past, present and future histories into a whole.

"The sayings and doings of daily life imply more or less such knowledge, actual or potential, of states which have gone before and of states which will come after, and, indeed, the greater part of our knowledge involves these elements. Knowing any man personally implies having before seen him under a shape much the same as his present shape, and knowing him simply as a man implies the inferred antecedent states of infancy, childhood and youth. Though the man's future is not known specifically, it is known generally; the facts that he will die and that his body will decay are facts which complete in outline the changes to be hereafter gone through by him. So with all the objects around. The pre-existence, under concrete forms, of the woolens, silks and cottons we wear, we can trace some distance back. We are certain that our furniture consists of matter which was aggregated by trees within these few generations. Even of the stones composing the walls of the house we are able to say that years or centuries ago they formed parts of some stratum imbedded in the earth. Moreover, respecting the hereafter of the wearable fabrics, the furniture and the walls, we can assert thus much, that they are all in the process of decay, and in periods of various lengths will lose their present coherent shapes.

"May it not be inferred that philosophy has to formulate this passage from the imperceptible into the perceptible, and, again, from the perceptible into the imperceptible? Is it not clear that this general law of the redistribution of matter and motion, which we lately saw is required to unify the various kinds of changes, must also be one that unifies the successive changes which sensible existences, separately and together, pass through? Only by some formula combining these characters can knowledge be reduced to a coherent whole."

This formula he sets out to build up from the facts he has already noted. Spencer, following his method, illustrates the law of concentration and diffusion, involved in all changes of aggregates, by drawing examples from all the observed facts of science and finds no exception. But in these changes are seen to be involved subordinate changes which give to evolution a compound character. The first characteristic of this kind to be noted is that in the constructive stage there is an *integration* of matter. This holds true whether the aggregate is a city, a man, or a solar system evolved out of nebulous gases. Accompanying this integration there is a dissipation of motion. As, for example, a loaded freight train is carried over a distance of 100 miles by a locomotive. The space occupied by the cargo is smaller, and the motion used is less, than the space and motion required were that cargo transported over the same distance by horses and wagons. Examples of this integration and loss of motion are seen in every aggregate in which evolutionary change is taking place. At the same time, the aggregate passes from an incoherent to a coherent state.

"Evolution, then," he says, "under its primary aspect, is a change from a less coherent form to a more coherent form, consequent on the dissipation of motion and integration of matter. This is the universal process through which sensible existences, individually and as a whole, pass during the ascending halves of their histories. This proves to be a character displayed equally in those earliest changes which the universe at large is supposed to have undergone, and in those latest changes which we trace in society and the products of social life. And throughout, the unification proceeds in several ways simultaneously.

"Alike during the evolution of the solar system, of a planet, of an organism, of a nation, there is progressive aggregation of the entire mass. This may be shown by the increasing density of the matter already contained in it; or by the drawing into it of matter that was before separate; or by both. But in any case it implies a loss of relative motion.

"At the same time, the parts into which the mass has divided severally consolidate in like manner. We see this in that formation of planets and satellites which has gone on along with the concentration of the nebula out of which the solar system originated; we see it in the growth of separate organs that advances, *pari passu*, with the growth of each organism; we see it in that rise of special industrial centers and special masses of population, which is associated with the rise of each society. Always more or less of local integration accompanies the general integration.

"And then, beyond the increased closeness of juxtaposition among the components of the whole, and among the components of each part, there is increased closeness of combination among the parts, producing mutual dependence of them. Dimly foreshadowed as this mutual dependence is in inorganic existence, both celestial and terrestrial, it becomes distinct in organic and super-organic existences. From the lowest living forms upward, the degree of development is marked by the degree in which the several parts constitute a coöperative assemblage. The advance from these creatures which live on in each part when cut to pieces up to those creatures which cannot lose any considerable part without death, nor any inconsiderable part without great constitutional disturbance, is an advance to creatures which, while more integrated in respect to their solidification, are also more integrated as consisting of organs that live for and by each other. The like contrast between undeveloped and developed societies need not be shown in detail; the ever increasing coördination of parts is conspicuous to all."

But while these processes are going on there is another and an important process at work. The aggregate, be it man, animal, plant, solar system, or society, while it is becoming integrated, coherent, and is losing motion, is also becoming more definitely diverse in its parts, or, in one word, heterogeneous. It is passing from a simple to a complex state, from an incoherent to a coherent state, from an indefinite to a definite state, and from a homogeneous to a heterogeneous state. These laws Spencer again illustrates with an abundance of familiar examples drawn from the whole range of human experience. He says:

"The progress from myths and legends, extreme in their misrepresentations, to a history that has slowly become, and is still becoming, more accurate; the establishment of settled systematic methods of doing things, instead of the indeterminate ways at first pursued—these might be enlarged upon in further exemplification of the general law. But the basis of induction is already wide enough. Proof that all evolution is from the indefinite to the definite we find to be not less abundant than proof that all evolution is from the homogeneous to the heterogeneous.

"It should, however, be added that this advance in definiteness is not a primary but a secondary phenomenon—is a result incidental on other changes. The transformation of a whole that was originally diffused and uniform in a concentrated combination of multiform parts implies progressive separation both of the whole from its environment and of the parts from one another. While this is going on there must be indistinctness. Only as the whole gains density does it become sharply marked off from the space or matter lying outside of it; and only as each separated division draws into its mass those peripheral portions which are at first imperfectly disunited from the peripheral portions of neighboring divisions, can it acquire anything like a precise outline. That is to say, the increasing definiteness is a concomitant of the increasing consolidation, general and local. While the secondary redistributions are ever adding to the heterogeneity, the primary redistribution, while augmenting the integration, is incidentally giving distinctness to the increasingly unlike parts as well as to the aggregate of them.

"But, though this universal trait of evolution is a necessary accompaniment of the traits set forth, it is not expressed in the words used to describe them. It is therefore needful further to modify our formula. The more specific idea of evolution now reached is—a change from an indefinite incoherent homogeneity to a definite coherent heterogeneity, accompanying the dissipation of motion and integration of matter."

Another law that enters into the definition of Evolution is that drawn from the redistribution of the retained motion.

"A finished conception of evolution we thus find to be one which includes the redistribution of the retained motion, as well as that of the component matter. This added element of the conception is scarcely, if at all, less important than the other. The movements of the solar system have for us a significance equal to that which the sizes, forms, and relative distances of its members possess. And of the phenomena presented by an organism, it must be admitted that the combined sensible and insensible actions we call its life do not yield in interest to its structural traits. Leaving out, however, all implied reference to the way in which these two orders of facts concern us, it is clear that with each redistribution of matter there necessarily goes a redistribution of motion; and that the unified knowledge constituting philosophy must comprehend both aspects of the transformation.

"While, then, we have to contemplate the matter of an evolving aggregate as undergoing, not progressive integration simply, but as simultaneously undergoing various secondary redistributions; we have also to contemplate the motion of an evolving aggregate, not only as being gradually dissipated, but as passing through many secondary redistributions on the way toward dissipation. As the structural complexities that arise during compound evolution are incidental to the progress from the extreme of diffusion to the extreme of concentration, so the functional complexities accompanying them are incidental to the progress from the greatest quantity of contained motion to the least quantity of contained motion."

The complete formula, therefore, may be stated in these words:

Evolution is an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity; and during which the retained motion undergoes a parallel transformation.

Here, then, we have the celebrated Evolution of Herbert Spencer. That it is true, he has no doubt, but how, he asks, are we to interpret it?

The test of any general law is its universal application. Can we find such universal application of the law of Evolution as defined by its originator? The first deduction we are to draw is that involved in the "instability of the homogeneous." No homogeneous body, however it may have become so, can long remain in that condition. It must become heterogeneous. This law he illustrates from physics and chemistry, and, in fact, all of the sciences. From these abundant illustrations we will select one.

The earth at one time was a molten mass much larger than it is now. It was then comparatively homogeneous. In this state it could not remain because the homogeneous is nowhere stable and fixed. Spencer shows the development of the varied combinations of the elements we now see in the earth in these words:

"There is every reason to believe that at an extreme heat the bodies we call elements cannot combine. Even under such heat as can be generated artificially some very strong affinities yield; and the great majority of chemical compounds are decomposed at much lower temperatures. Whence it seems not improbable that, when the earth was in its first state of incandescence, there were no chemical combinations at all. But, without drawing this inference, let us set out with the unquestionable fact that the compounds which can exist at the highest temperatures, and which must therefore have been the first formed as the earth cooled, are those of the simplest constitutions. The protoxides, including under that head the alkalies, earths, etc., are, as a class, the most fixed compounds known: the majority of them resisting decomposition by any heat we can generate. These, consisting severally of one atom of each component element, are combinations of the simplest order, are but one degree less homogeneous than the elements themselves.

"More heterogeneous than these, more decomposable by heat, and therefore later in the earth's history, are the deutoxides, tritoxides, peroxides, etc., in which two, three, four, or more atoms of oxygen are united with one atom of metal or other base. Still less able to resist heat are the salts, which present us with compound atoms each made up of five, six, seven, eight, ten, twelve, or more atoms, of three, if not more, kinds. Then there are hydrated salts of a yet greater heterogeneity which undergo partial decomposition at much lower temperatures. After them come the further complicated supersalts and double salts, having a stability again decreased, and so throughout. After making a few unimportant qualifications demanded by peculiar affinities, I believe no chemist will deny it to be a general law of these inorganic combinations that, other things equal, the stability decreases as the complexity increases. And then, when we pass to the compounds that make up organic bodies, we find this general law still further exemplified: we find much greater complexity and much less stability. An atom of albumen, for instance, consists of 482 ultimate atoms of five different kinds. Fibrine, still more intricate in constitution, contains in each atom 298 atoms of carbon, 49 of nitrogen, 2 of sulphur, 228 of hydrogen, and 92 of oxygen—in all, 660 atoms; or, more strictly speaking, equivalents. And these two substances are so unstable as to decompose at quite moderate temperatures; as that to which the outside of a joint of roast meat is exposed.

"Possibly it will be objected that some inorganic compounds, as phosphureted hydrogen and chloride of nitrogen are more decomposable than most organic compounds. This is true; but the admission may be made without damage to the argument. The proposition is not that *all* simple combinations are more fixed than *all* complex ones. To establish our inference it is necessary only to show that, as an *average fact,* the simple combinations can exist at a higher temperature than the complex ones. And this is wholly beyond question.

"Thus it is manifest that the present chemical heterogeneity of the earth's surface has arisen by degrees as the decrease heat has permitted; and that it has shown itself in three forms—first, in the multiplication of chemical compounds; second, in the greater number of different elements contained in the more modern of these compounds; and, third, in the higher and more varied multiples in which these more numerous elements combine.

"Without specifying them it will suffice just to name the meteorologic processes eventually set up in the earth's atmosphere, as further illustrating the alleged law. They equally display that destruction of a homogeneous state which results from unequal exposure to incident forces."

Accompanying the instability of the homogeneous there is the fact that the effects of this change are multiplied. This truth is so plain as to need no illustration.

If one were offered, however, the development of the chick in the egg would suffice. Another law to be noted is that of "segregation" whereby like things are gathered together and separated from things unlike them. Nations, neighborhoods, clans, districts having certain characters, as manufacturing, for example, pebbles on the sea beach, are all examples of this law.

The last law to be considered is "equilibration." In treating of this law Spencer says:

"And now toward what do these changes tend? Will they go on forever, or will there be an end to them? Can things increase in heterogeneity through all future time? or must there be a degree which the differentiation and integration of matter and motion cannot pass? Is it possible for this universal metamorphosis to proceed in the same general course indefinitely, or does it work toward some ultimate state admitting no further modification of like kind? The last of these alternative conclusions is that to which we are inevitably driven. Whether we watch concrete processes, or whether we consider the question in the abstract, we are alike taught that evolution has an impassable limit."

The end of Evolution, therefore, is equilibrium. All forces in nature seek equilibrium. The river flows to the sea, the pendulum sways forward and back until it comes to a stop, a harpstring vibrates until it ceases to move; motion in all cases tends to rest. But there is another kind of equilibrium—that called *moving equilibrium.* The most familiar example of this is found in the top. The top at first "wabbles," but gradually takes an upright position until it is in perfect equilibrium. Its center of gravity is so rapidly readjusted as to force it to stand, moving, in a position which it could not for a moment maintain were it not spinning. This is *moving* *equilibrium.* Presently its rotation becomes less rapid, the "wabbling" is seen again, and the top falls. It is now in *permanent* equilibrium.

Through these processes, Spencer holds, the universe is passing and must pass. But here he confronts himself with the question which, no doubt, has already occurred a hundred times to the mind of the reader.

"If evolution of every kind is an increase in complexity of structure and function that is incidental to the universal process of equilibration, and if equilibration must end in complete rest, what is the fate toward which all things tend? If the solar system is slowly dissipating its forces—if the sun is losing his heat at a rate which will tell in millions of years—if with diminution of the sun's radiations there must go on a diminution in the activity of geologic and meteorologic processes as well as in the quantity of vegetal and animal existence—if man and society are similarly dependent on this supply of force that is gradually coming to an end, are we not manifestly progressing toward omnipresent death?"

Apparently, the answer to this latter question must be in the affirmative. But as equilibration is deducible from the persistence of force, the force must remain after complete equilibrium has been attained, and what then? If we try to ponder on what the moving equilibrium of society and this world will be when it shall have been at last reached, we are discouraged from thought, although Spencer has no hesitation in saying that with that equilibrium man's happiness will be perfect. The moving equilibrium destroyed, as in the case of the top, *then* what?

Spencer answers this question with one word—Dissolution. Force, persisting, will and must reduce the evolved universe back again into the simple, incoherent, indefinite, and homogeneous condition from which it came forth out of chaos into order. We will here refer the reader to the quotation from *First Principles* made in the section on the Orientals, and bearing that in mind we are now ready for Spencer's grand conclusion. It is this:

"Motion as well as matter being fixed in quantity it would seem that the change in the distribution of matter which motion effects coming to a limit in whichever direction it is carried, the indestructible motion thereupon necessitates a reverse distribution. Apparently the universally coexistent forces of attraction and repulsion, which, as we have seen, necessitate rhythm in all minor changes throughout the universe also necessitate rhythm in the totality of its changes, produce now an immeasurable period during which the attractive forces predominating cause universal concentration and then an immeasurable period during which the repulsive forces predominating cause universal diffusion—alternate eras of evolution and dissolution. And thus there is suggested the conception of a past during which there have been successive evolutions analogous to that which is now going on, and a future during which successive other such evolutions may go on, ever the same in principle but never the same in concrete result."

A more precise definition of the Brahministic cosmogony, in its broad lines, could not be stated. In summing up the first principles of his system Spencer calls attention to the weakness of the materialistic philosophy and the idealistic (which he calls "spiritualistic.")

"Over and over again," he says, "it has been shown in various ways that the deepest truths we can reach are simply statements of the widest uniformities in our experience of the relations of matter, motion and force, and that matter, motion and force are but symbols of the unknown reality. A Power of which the nature remains forever inconceivable, and to which no limits in time or space can be imagined, works in us certain effects. These effects have certain likenesses of kind, the most general of which we class together under the names of matter, motion, and force; and between these effects there are likenesses of connection, the most constant of which we class as laws of the highest certainty. Analysis reduces these several kinds of effect to one kind of effect, and these several kinds of uniformity to one kind of uniformity. And the highest achievement of science is the interpretation of all orders of phenomena, as differently conditioned manifestations of this one kind of effect under differently conditioned modes of this one kind of uniformity. But when science has done this it has done nothing more than systematize our experience, and has in no degree extended the limits of our experience. We can say no more than before, whether the uniformities are as absolutely necessary, as they have become to our thought relatively necessary. The utmost possibility for us is an interpretation of the process of things as it presents itself to our limited consciousness; but how this process is related to the actual process we are unable to conceive, much less to know.

"Similarly, it must be remembered that while the connection between the phenomenal order and the ontological order is forever inscrutable; so is the connection between the conditioned forms of being and the unconditioned form of being forever inscrutable. The interpretation of all phenomena in terms of matter, motion, and force is nothing more than the reduction of our complex symbols of thought to the simplest symbols; and when the equation has been brought to its lowest terms the symbols remain symbols still. Hence the reasonings contained in the foregoing pages afford no support to either of the antagonist hypothesis respecting the ultimate nature of things.

Their implications are no more materialistic than they are spiritualistic; and no more spiritualistic than they are materialistic. Any argument which is apparently furnished to either hypothesis is neutralized by as good an argument furnished to the other.

"The materialist, seeing it to be a necessary deduction from the law of correlation, that what exists in consciousness under the form of feeling is transformable into an equivalent of mechanical motion, and by consequence into equivalents of all the other forces which matter exhibits, may consider it therefore demonstrated that the phenomena of consciousness are material phenomena. But the spiritualist, setting out with the same data may argue with equal cogency that if the forces displayed by matter are cognizable only under the shape of those equivalent amounts of consciousness which they produce, it is to be inferred that these forces when existing out of consciousness are of the same intrinsic nature as when existing in conciousness; and that so is justified the spiritualistic conception of the external world as consisting of something essentially identical with what we call mind.

"Manifestly, the establishment of correlation and equivalence between the forces of the outer and the inner worlds may be used to assimilate either to the other, according as we set out with one or other term. But he who rightly interprets the doctrine contained in this work will see that neither of these terms can be taken as ultimate. He will see that though the relation of subject and object renders necessary to us these antithetical conceptions of spirit and matter, the one is no less than the other to be regarded as but a sign of the unknown reality which underlies both."

The last words in the last quotation are the closing words of *First Principles.* The whole Spencerian system is developed on the lines therein laid down, according to the formula of the Law of Evolution. This law is applied throughout *The Principles of Biology,* which comes next in order, and then throughout the remaining books in their sequence: *The Principles of Psychology, The Principles of Sociology,* and *The Principles of Ethics.* The controversy, now happily at an end, the subject of which was whether Spencer borrowed from Comte, although an interesting, was a purposeless one. Spencer has said himself that he had outlined his system completely before he had ever read a line that Comte wrote. So far as the two systems being more than basically akin is concerned, a reading of both will satisfy anyone of the thoroughly original character of Spencer's work. As a systematist the Englishman is immeasurably superior to the Frenchman.

Is Spencer an Agnostic? If by Agnosticism we mean what Huxley, who invented the word, says *he* means, then the great Evolutionist is *not* an Agnostic. The Unknowable for him means only that which every thinker and every theologian, from Augustine and Thomas Aquinas down to Beecher and Cardinal Wiseman, have admitted to be unknowable. Agnostic, on the other hand, while in some respects describing Spencer's position, cannot be applied to him; for the Agnostic School (if we can call the opinion of one man by that name) has no definite system, no precise definitions, no body of doctrines, and not even a profound speculation. Professor Huxley regarded the widespread use of the word (which he coined in one of his humorous moments) as a capital joke, and he repudiated all Agnostics except himself. The word Agnostic —and candor compels us to leave Professor Huxley out of the category—describes more nearly than it does anything else the opinion of the Skeptic; not Skepticism according to Pyrrho, but Skepticism according to Hume.

Spencer is not an Agnostic, nor yet a Materialist. He is an Evolutionist. To him we owe the term "The Survival of the Fittest," an expression erroneously credited to Darwin. Spencer accepted Darwin's theory of Natural Selection. He is the only author who has in any measure succeeded in applying the theory of evolution to all things, and Evolution is the substance and body of his doctrine.

We have indicated that the systems of philosophy that have been considered in this book up to the time of Spencer have been failures. Must we say that Spencer is a failure also? As a system, the Synthetic Philosophy is perhaps the most completely and scientifically wrought out of all those we have had to deal with. Yet it must share the general fate. Why? Because *all* philosophy must fail. Spencer perhaps will stand for centuries as the greatest generalizer of science. But the truths of science need no man to generalize them. The discoveries of a Newton or of a Darwin naturally *fit themselves* into truths discovered by other men. The system of man's knowledge of nature is not built up by philosophical reasoning.

Spencer's discoveries of relations between great masses of scientific facts are *scientific* not philosophical achievements. His has been a two-fold function; that of the investigator, that of the philosopher. Although he condemns the metaphysician, he is metaphysical himself, but that fact will never deprive mankind of the benefit of the immeasurable services he has done the world in the sciences of Psychology and Sociology and in virtually founding the science of Ethics.

Were what is here intended more than the merest sketch of the great Synthetic System we could carry out the development of the first principles through the organic, social, and ethical departments of the Spencerian scheme. But such, in the present circumstances, is impossible. Spencer's purpose, as he himself says, was chiefly to prepare a foundation for a system of ethics that would take the place of the systems that obtain to-day. It is doubtful whether he has succeeded. It must be long before his ethics is accepted by any but the most scientific men. Such do now, indeed, accept it. The departure he makes from current opinion is too abrupt to be readily followed by any but those who have become convinced that there need be no motive to do good and to act rightly other than the motive that is found on this earth here and now and in the present moment. The ethics of Spencer is involved in the single aphorism, "Virtue is its own reward."

To do the great man justice it may be said that he has lived up to his teachings. No higher conceptions of just acting can be found than his own, and his life has been an exemplar of his theory.

It will be interesting to hear what the last of the philosophers has himself to say of his own completed work. In the preface to the third volume of the Sociology (Appleton & Co.), Spencer, writing in 1896, says: "On looking back over the six-and-thirty years which have passed since the Synthetic Philosophy was commenced, I am surprised at my audacity in undertaking it, and still more surprised by its completion. In 1860 my small resources had been nearly frittered away in writing and publishing books which did not repay their expenses; and I was suffering under a chronic disorder, caused by overtax in 1855 which, wholly disabling me for eighteen months, thereafter limited my work to three hours a day, and usually to less. How insane my project must have seemed to onlookers, may be judged from the fact that before the first chapter of the first volume was finished, one of my nervous breakdowns obliged me to desist. But imprudent courses do not always fail. Sometimes a forlorn hope is justified by the event. Though, along with other deterrents, many relapses, now lasting for weeks, now for months, and once for years, often made me despair of reaching the end, yet at length the end is reached. Doubtless in earlier years some exultation would have resulted; but as age creeps on feelings weaken, and now my chief pleasure is in my emancipation. Still there is satisfaction in the consciousness that losses, discouragements, and shattered health have not prevented me from fulfilling the purpose of my life."

It is not probable that a new philosopher with a new system will arise after Spencer. Men do not now busy themselves with the subjects that engaged the attention of the thinkers and the speculators whose lives have been touched upon in this volume. Philosophy has disappeared, on the one side in Science, and on the other in Religion. That *reconciliation,* proposed by him may be ratified; and if to propose it—to propose this unition of Knowledge with Hope—was all he accomplished, Spencer, for that alone, would deserve a highest place among the Great Philosophers of the World.

NOTE

In addition to the original works of the philosophers, the author has used the following books in the preparation of this volume:

Beal, Samuel—"Romantic Legend of Sakya Buddha."
Bigandet, Bishop—"Legend of the Burmese Buddha."
Diogenes Laertius—"Lives and Opinions of Eminent Philosophers." Translated by C. D. Yonge.
Dixon, W. Hepworth—"The Story of Lord Bacon's Life."
Draper, J. W.—"Intellectual Development of Europe."
Enfield, William—"History of Philosophy."
Fenelon, Francois Salignac—"Abridgement of the Lives of Ancient Philosophers."

Hampden, R. D.—"Fathers of Greek Philosophy."
Hardy, Spence—"Manual of Buddhism."
Huxley, Thomas—Essays.
Inman, Thomas—"Ancient Faiths and Modern."
Lecky, W. E. H.—"History of European Morals."
Lewes, G. H.—"A Biographical History of Philosophy."
Muller, Max—"Buddhism."
Muller, Max—Essays.
Renan, Ernest—"Marcus Aurelius."
Renan, Ernest—"The Christian Church."
Rockhill, W. W.—"Life of the Buddha."
Ward, Lester F.—"Dynamic Sociology."
Windelband, W.—"History of Philosophy," translated by James H Tufts.

DATE DUE

DEMCO NO. 38-298

RUTGERS UNIVERSITY LIBRARIES
3 9030 00693541 7

G85-B8700