

58, 64, 119, 243, 245, 248, and the Aldine; (2) 44, 71, 74, 106, 107, 120, 121, 134, 286. These last two recensions, as they are named, present a text more or less emended — the former with reference to Codex Alexandrinus — and, at the same time, do not always retain their distinctive features, being more or less influenced by each other.

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## ARTICLE II.

### ARISTOTLE.

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#### I. — HIS THEOLOGY.

“It is natural that he who first discovers any art whatsoever, beyond the ordinary perceptions of the senses, is admired by men, not only because he has discovered something useful, but as wise and different from the rest of mankind.”<sup>1</sup> This remark of Aristotle’s is peculiarly appropriate to himself. All men seem to be possessed with a desire to trace an art or an idea to its originator. Countless pages have been written to prove that this or that man first invented printing. Immense labor has been expended by the learned in their attempts to discover the discoverer of gunpowder. Fierce contests have raged over the question to whom the glory of applying steam as a motive power was due. Between the followers of Newton and those of Leibnitz a most envenomed controversy arose as to which was first in the application of fluxions. In more recent times we have seen the magnificent honors heaped upon Morse, because he first reduced electricity to the service of man. All early nations must have their eponymous heroes; when they cannot find them they invent them. The early writings of the Hebrews give us the names of the inventors of the arts; the modern Arabs even point out the tomb of the first of the human race. This desire may be explained in the words of Aristotle him-

<sup>1</sup> *Arist. Met.*, i. 1. extr.

self, as a desire to know things in their causes; we do not feel that we thoroughly know a subject until we learn what others have known about it, and our satisfaction is never complete until we go back to the very earliest sources. Of course, we can never say that any man has not received the idea that has made him famous from some forerunner; yet, in the case of Aristotle, we may affirm with a tolerable degree of certainty, that to him belongs the glory of the first systematic treatment of the reasoning faculty. Before him all men had reasoned; some few had observed that they reasoned; he first clearly showed *how* they reasoned, and how all men must reason. The great principles that he was the first,<sup>1</sup> so far as we know, to discern and clearly lay down, have been the guides of all following ages; the canons that he established remained until within the present century, with little change, the rules to which all valid reasoning must conform. Isidore St. Hilaire has remarked: "It is the destiny and glory of the anatomist of Stagira, to have had before him simply precursors, and after him only disciples." In a similar way the great Cuvier has expressed the most unbounded admiration, not only of the genius but of the results achieved by Aristotle in his physical investigations.<sup>2</sup> Although Lewes has severely criticized these unqualified laudations, he himself admits the wonderful results that Aristotle, in spite of the lack of suitable appliances, was able to obtain. We may, perhaps, no longer say that an acquaintance with his works on natural science is essential, or even desirable; but his metaphysics, ethics, and politics, his rhetoric and poetics are,

<sup>1</sup> Maurics asserts that Zeno deserves the credit of being the inventor of Logic, but gives no satisfactory reasons. — Hist. Anc. Philos. in Encyc. Met., vi.

<sup>2</sup> Lewes, Aristotle, xv. Lewes also quotes the opinions of Hamilton, — "His seal is upon all the sciences and his speculations have, mediately or immediately, determined those of all subsequent thinkers"; and Hegel: "He penetrated into the whole universe of things, and subjected its scattered wealth to intelligence; and to him the greater number of philosophical sciences owe their origin and distinction." St. George Mivart, in "Contemporary Evolution," remarks: "There is not and never was nor will be more than one philosophy which, properly understood, unites all speculative truth and eliminates all errors; *the philosophy of the philosopher Aristotle.*"

and will ever remain, among the great works of the human mind.

Certainly the name of Aristotle is seldom mentioned without respect, but probably the number of persons in this country who have a familiar acquaintance with his writings is extremely small, while those who have any acquaintance at all, except at second hand, would, perhaps, not be very much more numerous. He is often referred to, but it is as a kind of mysterious *deus ex machina* — a name to conjure with, like that of Solomon to the Magicians of the East. It is eminently respectable to adorn a philosophical dissertation, or even a sermon, with a quotation from the Stagirite; but it may be doubted whether such quotations are always obtained from a perusal of his writings.

The causes of this neglect are numerous. There is, in the first place, no very satisfactory English translation of most of his works; and the translations that are best are generally fatiguing from too great fidelity to the original. There is great need of an elegant paraphrase, such as Jowett has given of Plato, in order to clearly bring forth those merits that are hidden under an unattractive style. The lack of translations would not be so serious an obstacle, were it not for the failure of our system of education to give the ordinary college graduate such a knowledge of Greek as will enable him a year after leaving college to read even a simple author without painful labor. To the vast majority of what we call our "cultured" classes the Greek and Roman classics are closed books. The study of Latin is usually so conducted that most scholars relinquish it with no feeling except weariness or disgust; while the writers that are usually studied, as they were but imitators of the Greeks, with scarcely a trace of originality, prejudice the mind of the scholar against all classical literature. And as the language is studied practically for the sake of the grammar, the very name of Latin suggests thoughts of etymology and syntax rather than literary enjoyment. The study of Greek, following that of Latin, is approached with a mind prejudiced

unfavorably, and labors under the additional disadvantage of requiring a familiarity with a most copious system of inflections, that is equally delightful to the philologist and burdensome to every one else. The amount of time spent in acquiring a painful and imperfect acquaintance with the accents alone, a knowledge that is in most cases almost useless, would, if properly applied, go far to enable the young student to read, at least the New Testament, with ease and real enjoyment. It is hardly necessary to remind any one who has attended a theological school of the dismal ignorance of Greek that is there displayed in the shortest lesson in the Gospels. And certainly if Greek is not understood by theologians, we may look in vain for any other class (except professional philologists) that has a very profound acquaintance with the language. If we add to this the common impression that the style of Aristotle is dry and difficult, while the subjects of which he treats are, in great part, highly abstract, it is, perhaps, not very remarkable that the father of systematic knowledge should be so much neglected.

We should also consider that modern civilization has not only made our material life much easier; it has encouraged intellectual indulgence. Books are plenty and cheap; magazines and newspapers bring such stores of interesting matter to our hands, that it requires a severe effort to deny oneself the luxury of these daintily prepared morsels, and turn back to the works of the mighty dead. Especially at the present time, when natural science has usurped the dominion of philosophy, when "Science Primers" have taken the place of the Westminster Catechism, and the operations of bugs and plants receive more attention than the working of the human mind; at such a time the claims of Aristotle might well be disregarded.

And yet the times are not altogether hopeless. The darkest hour is just before dawn. Things run in cycles; and though natural science now stalks almost unchallenged in the lists, the rhythm of progress will again elevate philosophy. The three questions of Kant: "Who am I? What can I do?"

What may I hope for?" can never permanently lose their interest for mortal men. The profound remarks of this writer in the Prolegomena to his *Kritik*, may be again true, a century after they were first spoken. He says: "All false art, all vain wisdom, endures its time; for at last it destroys itself, and its highest cultivation is at the same time the period of its ruin. That in reference to metaphysics this time is at hand, is indicated by the state into which it has fallen among all the learned, compared with the earnestness with which all other sciences are pursued. . . . . Metaphysics is no more numbered among the thorough sciences; and we may judge for ourselves how an intelligent man, if any one should be disposed to call him a great metaphysician, would probably regard this well-meant, but scarcely coveted, compliment." <sup>1</sup>

It may seem tedious and unnecessary to allude to the controversy between religion and science, after they have been so often and so elaborately reconciled; but as it is, after all, apparent to any but the most superficial observer that they are not reconciled, and the conflict in this country is even now impending, it is becoming for all religious men to fit themselves to engage in the conflict. All the facts of science may be accepted by the theologian, but its spirit and principles, being essentially analytical, are necessarily unfavorable to received faith. Were there no warfare to be waged, or "reconciliation" to be effected, it would yet be of advantage to the theologian to study the great philosopher from whom both his own theology and the science of his opponents are to a great extent derived. Nothing could be more interesting to the critical observer than now, when "synthetic" and "cosmic" philosophies are presented us by parturient mountains, to read the philosophy of Aristotle, and to recognize in his account of the philosophers that preceded him the principles or speculations that are exhibited in modern times with the brand-new stamp of modern science. One recalls the doctrine of metempsychosis as he

<sup>1</sup> Proleg. Met., Rosenkranz, p. 144.

discovers the long-since departed souls of forgotten philosophies, clothed and vivified, and stalking abroad with more than their former pride. Had Aristotle been endowed with prophetic insight, he might have exclaimed, as he described an overthrown speculation :

“And thou wilt walk about — how strange a story —  
In other streets, two thousand years from now !”

Forgetting time, one might fancy himself with Aeneas, visiting the nether world, and beholding departed warriors still going through their wonted exercises on the dusky plains.

Thought has no age. As the shower of to-day is composed of the same particles of water that have fallen thousands of times on the earth, and will flow down to the ocean only to return again to the clouds, so the opinions of men are perennial. They arise, flourish, and decay ; but even when we seem to see them vanish from the earth we may know that sometime they will reappear.

“Alter erit tum Tiphys, et altera quae vehat Argo  
Delectos heroas ; erunt quoque altera bella,  
Atque iterum ad Trojam magnus mittetur Achilles.”

The principle that has given to natural science its success since the time of Bacon is that hypotheses must be tested. No discovery is possible without hypothesis ; but no hypothesis is valid that cannot be tested. We find now, however, that this conservative principle is often disregarded. Physical investigators look above their simple compounds, and propound formulæ for the construction of the universe. The whole theory of atoms was not long since pure speculation, rank metaphysics. It has often been maintained against the argument from design, that it is invalid, because we have no experience in the creation of worlds. The same reasoning may now be retorted on its originators. No theory of creation can be tested by experience ; as modern scientists have chosen to suggest such theories, they have cut loose from their sheet-anchor, and have either stultified themselves or else must admit the possibility of metaphysics — perhaps an equal stultification. In the *Atlantic Monthly* for 1876

we find a *resumé* of current speculations as to the ether that physicists now require as a substitute for the substance of metaphysicians. Magnificent as these theories are, they are yet pure speculations; for our modern philosophers find themselves at once confronted with the old question whether the ether, and consequently the universe, is infinite, or not. When physicists have to deal with infinities, then farewell science. Indeed, Mr. John Fiske, the author of the papers spoken of, declares that he is not unwilling to admit that the grand assumption on which all science rests — “the principle of continuity,” “the uniformity of nature,” the “persistence of force,” or the “law of causation” — is a supreme act of faith, the definite expression of a trust that the Infinite Sustainer of the universe will not put us to permanent intellectual confusion. May we not regard this as a sign that there is room for a revival of theology?

But if this revival is to come, as it is most desirable it should, from the church, and not, as it now promises to, from the ranks of the scientists, there must be a change in the reading of the clergy. It is an obvious fact that they have lost much of their influence with the more thoughtful portion of the community; and this is possibly in great part so because they do not, in too many cases, keep company with the great minds of the world, nor employ their thoughts on the greatest of subjects, but subsist mentally, for the most part, on ephemeral literature and commentaries; in short, on easy reading. But “hard is the good,” as Socrates used to say; and their influence can best be regained by the patient study of the great minds of the past. They will find that their utterances command more respect when they are not derived from those sources that are equally available to their hearers and themselves. No thoughtful man is impressed by a sermon that he is able to find substantially in the commentary that adorns his library, as well as his pastor’s.

That such study should begin with Aristotle seems altogether fitting; for, with the exception of some slight additions and modifications, the system of natural theology adopted

by the church is found, at least by implication, in his writings. The sentences that students of theology copy into their note-books are often the very same that were jotted down by the hearers of Aristotle. He laid his foundations broad and deep, and on them the church has built its structure. The fact that the schoolmen elaborated his doctrines has, perhaps, given them a bad name; but the ignorant abuse of the schoolmen should be corrected. The subjects of their disputes may seem trivial; but they took no thought of the subjects; it was the principle involved that they sought, and a principle is often more apparent in a familiar example than in the universe at large. Intellectual ability always commands respect; and no one can read the works of Thomas Aquinas without feeling that he is in the presence of a master. Men talk of the dispute of the realists and nominalists as if it were a thing of the past; but all men, now just as much as then, are realists or nominalists, little as they may be aware of it. Our data are more certain and numerous; but we do not often observe greater ability in handling them than the schoolmen exhibited with their imperfect materials.

The style of Aristotle is not beyond the reach of any one who can read the Greek of the New Testament with ease. Its difficulties have been exaggerated. It is probable, from internal evidence, that his writings have reached us in the form of lecture-notes; and it is plain from this that they are not to be rapidly read, but studied. They are like mathematical formulas; if read hastily nothing can be more unintelligible, but if studied and understood they are full of meanings of the widest application. Their condensation is marvellous. Herbert Spencer devotes one of his fine essays to the definition of science and philosophy. Aristotle, in a few lines at the beginning of his metaphysics, expresses substantially all that is important in the essay of Spencer. One must often pause, after reading a sentence, to take in the wide meaning suggested by the words. Yet the severity of the style is occasionally redeemed by illustrations that are though condensed yet clear, and anecdotes that are none the

less apt because they have a spice of humor that even now provokes a smile. Aristotle is said to have made a collection of proverbs and stories; and one is tempted to wonder whether Bacon gathered his book of apothegms in conscious imitation of Aristotle, or simply from similarity in mental constitution. Certainly, no other writer resembles Aristotle so much, and those that have patience to digest his sententious essays can form a comparatively just estimate of the merits of Aristotle as a suggestive writer. We must never lose sight of the fact that his writings, as we possess them, are deplorably mutilated, and may probably, as above remarked, be no more than the notes of his lectures, taken by some devoted pupil; and yet, like the ruins of the Parthenon, they are almost more impressive. We venture to translate a passage from the Ethics as a specimen of his style.

“Great-souledness seems to be, from the meaning of the word, something that pertains to great things; and to what kind of great things we will first consider. It makes no difference whether we consider the state of mind, or the man that has the state of mind. The great-souled man is one who at the same time thinks himself worthy of great things and is worthy. For he who thinks himself worthy and is not, is a fool; but no virtuous man is a fool, or without reason. So that the great-souled man is such as we have described him. For he who thinks himself worthy of little, and is worthy of little, is a sensible man, but not a great-souled man. For great-souledness consists in greatness, as beauty belongs to a large body; little people are elegant and symmetrical, but not beautiful. He that thinks himself worthy of great things, but is unworthy, is conceited. He that thinks himself worthy of greater things than he is worthy of is vain, but not altogether. He that thinks himself worthy of less than he deserves is small-souled, whether the things be great or moderate; or if he is worthy of small things and thinks himself worthy of smaller. Especially if he that is worthy of great things thinks himself unworthy; for what is he to do if he is not worthy of great things? So then the great-souled man is the highest in respect to greatness; but moderate in that he judges as is fit concerning his own merits, for he thinks himself worthy of those things that correspond to his worth. Others err on one side or the other. If then he thinks himself worthy of the greatest things and is worthy, and especially if this is so of the greatest things, it would be especially true of one. For worth is predicated of external goods. But we ought to consider as the greatest of these what we assign to the gods, and what those held in esteem especially aim at, the reward of the

noblest deeds. Such a thing is honor; for this is the greatest of external goods. About honor, therefore, and dishonor he will behave himself in a becoming way. It is clear enough that great-souled men are especially concerned with honor, for they think themselves worthy of honor, and deservedly. The mean-spirited man is deficient both as regards his own honor and that of the great-souled man. But the conceited man goes beyond bounds in his own case; but it is not so in the case of the great-souled man. Now if the great-souled man is worthy of the greatest things he is the best man; for the better is worthy of the better things, and the best of the best. Hence the great-souled man must be a good man. And that which is great in every virtue would seem to pertain to the great-souled man. For it is no wise congruous for him to flee in terror, nor to act unjustly; for why should he do base things to whom nothing is great? And it is absurd to say that the great-souled man is not good; for if he were bad he would not be worthy of honor. For honor is the reward of virtue, and belongs to good men. So that great-souledness seems to be a kind of ornament to the virtues; for it makes them greater, and does not arise without them. Hence it is hard to be truly great-souled; for it is not possible without the highest excellence. Accordingly the great-souled man is such in reference to honor and dishonor. And in regard to great honors and those of good men, he will feel with moderation, as getting what belongs to him or is less than his deserts; for honor suitable to perfect virtue might not exist. But he will receive what is offered, because there is nothing greater; what is offered by every one and on account of little things he will utterly reject; for these are not what he deserves. So in regard to dishonor; for this cannot justly exist in regard to him. We see again, therefore, that great-souledness is concerning honor; but in regard to riches and power, in good or ill fortune, he acts moderately whatever occurs, neither being elated by good fortune, nor cast down by ill fortune; for he is not thus affected even by honor, which is the most important thing. Power and wealth are desirable because they are honored; for those who possess them wish to be honored on their account. He, therefore, to whom honor is a small thing will not think other things great. On this account great-souled men seem to be haughty. Prosperity seems to favor great-souledness; for those of high birth, and those exercising power, or the rich, are esteemed, for they excel others; but to excel in what is good is most honored. Such things then make men greater-souled, for they are honored by others. In truth, however, the good man alone is honorable; but he who possesses both is thought more worthy of honor. Those who possess such advantages without virtue, — these neither justly think themselves worthy of great things, nor are rightly called great-souled; for these things do not exist without perfect virtue. Also, those having these good things become haughty and contemptuous; for it is hard to bear prosperity wisely without virtue. But not being

able to bear, and thinking they excel others, they despise them; but they themselves do whatever may present itself, for they mimic the great-souled man, not being like him, and they do this in what things they can. So they do not act according to virtue, and yet despise others. But the great-souled man justly despises others, for he judges rightly; but most do so by chance. He does not expose himself to little danger, nor is he fond of danger, as he thinks highly of few things; but he meets great dangers and when in peril does not spare his life, as he does not think it worth while to rate life too highly. He is disposed to benefit others, but blushes to receive a benefit; for the one is the part of a superior the other of an inferior. And he pays back a kindness in greater measure; for in this way he makes the man to whom he was indebted, indebted to him. These great-souled men seem to remember those whom they have benefited. but not those who have benefited them; for he that is benefited is the inferior, but he wishes to be superior. And the former things he will willingly listen to, but the latter unwillingly. Therefore, Thetis does not state her benefits to Zeus, nor the Lakonians to the Athenians, but the benefits received. The great-souled man also asks favors of no one, or scarcely any one, but he willingly obliges; and to those in honor and prosperity he is lofty, but to those in moderate circumstances he is gracious; for to excel the former is hard and honorable, the latter easy. To be honored by the former is a fine thing, but by the latter is petty — like showing off one's strength before the weak. He will not follow kings in honor or where others have the first place. He will be indifferent and procrastinating except in matters of great honor and great labor; a doer of few things, but those great and famous. It is necessary that he should be an open enemy and an open friend; for to conceal is the part of the timid. He will take more pains about truth than appearances, and will speak and act openly; for as he despises others he is indifferent to their opinion. But he cares not for others, because he is entirely truthful, except when he speaks in irony — but to most he does speak in this manner. And he cannot live with another in any other relation than that of friend; for it is servile; all flatterers are mercenary, and all low persons are flatterers. Nor is his admiration easily excited; for there is nothing great to him. Nor does he remember injuries; for a great-souled man does not cherish recollections especially of bad things, but rather overlooks them. Neither is his conversation about persons, for he will not speak of himself nor about another; for he is not anxious to be praised, nor that others should be blamed; nor, again, is he given to praising others. Hence he is not a speaker of evil, not even of his enemies, except in haughtiness and defiance. And in regard to the ordinary necessities and trifles of life he is not given to complaining nor entreating, for this is characteristic of a man that devotes too much attention to these things. And he is disposed to acquire things that are beautiful but not profitable, rather than

productive and useful things, for he is self-sufficient, and not dependent. His movements are slow, his voice grave, his speech steadfast; for he that is agitated by few things is calm, nor does he struggle much who thinks nothing is great; but sharp voices and hasty movements arise from these causes. Such then, is the great-souled man; but he that falls below this mark is small-souled, he that exceeds is self-conceited and arrogant. Such are not to be regarded as evil, for they are not evil-doers; but they are in error."<sup>1</sup>

This is not the character that the American people delights to honor with public office; but it is a character that deserves to be studied. It is not, however, our purpose to comment on this passage; it is simply presented as a fair example of the peculiar style of the author.

In this rendering elegance has been sacrificed to literalness, and even the obscurities of the passage have been retained, in order that as fair a judgment of the style as possible may be formed. The most important characteristic of Aristotle's method, no more apparent here than everywhere, is his determination of the "end." In all investigation, he lays it down as a fundamental principle, the end in view must first be clearly determined; otherwise, the investigation, having nothing to guide it, will wander aside, and, after a confused course, will come to nothing. Trite enough, this may sound, but it cannot be too often insisted on. Most disputes arise from the use of words in different senses by the disputants; the remainder are caused by a difference as to the end in view. Take the interminable contest between the free-traders and the protectionists in this country. One party maintains and clearly proves that production and distribution are favored by freedom; that free-trade is economically wise. The other party maintains that national independence requires that all things, so far as possible, shall be produced within the territory of the nation itself, although some extremists go so far as to pretend that economic prosperity is increased by tariffs and bounties. It is plain that the end in view is different to each party, and they may sail away on their parallel or diverging lines to

<sup>1</sup> Eth. Nik. iv. 7, 8.

infinity, firing across at each other most furiously without ever doing or suffering any damage. Examples from the history of theological controversy will easily suggest themselves.

In immediate connection with this peculiarity we may notice the extreme carefulness of definition with which Aristotle systematically proceeds. This is especially noticeable in his treatise on metaphysics, where he has continually before his eyes the great confusion into which previous philosophers had fallen from their neglect of this caution. This explains what may seem a defect in his style—the iteration of the same thought. But it is probable that this is intentional, being designed to clearly impress on the mind of the hearer the results of one step in the investigation before another step that depends on the former shall be taken. It is not often that one feels, after patiently going through such an analysis as that given above, that the author has wasted words. The work is not polished like our modern writing; there is no attempt to conceal the framework with all its articulations; they are rather laid bare, and like one of our skeleton iron bridges every truss and bolt in its endless repetition is visible. There is little beauty in either case; but the logical connection is as strong as the iron, and he that enters on an investigation with Aristotle is little less certain to come out with him than the train that starts to cross the bridge is to reach the further end. But the merits of iron bridges do not reveal themselves to those that hurry over them at railroad speed.

The works on Aristotle are numerous, and his system is detailed in the histories of philosophy. Yet, in certain respects, there is an advantage in going back to his own writings for his opinions; otherwise, our knowledge, in the course of time, comes to be little more than the opinion of the latest critics as to the opinions that earlier critics have regarded as the opinions entertained by Aristotle. In certain passages Aristotle expresses himself so plainly and tersely that much comment tends to becloud his meaning. It is

true that, owing to the deplorable disarrangement into which his treatises fell, we often find passages bearing on a subject that is elsewhere systematically treated,— passages that seem sometimes almost contradictory. The method followed below is to take the opinion expressed on a subject when that particular subject is under discussion ; giving less weight, for the most part, to remarks that are elsewhere casually thrown out.

The views of such a mind as Aristotle's are of interest on almost every subject ; through his penetrating vision, as by the aid of a microscope, much is revealed, even in common objects, that would otherwise escape notice. But, in the most important of all investigations, that into the nature of Deity, we feel an especial desire to learn what results this wonderful intellect, unaided by the light of revelation, could attain. The difficulties in the way of finding out his real views are, however, almost insuperable. Nothing is more contradictory than the testimonies of both ancient and modern philosophers on this point, and the writings of Aristotle himself, as they have reached us, contain statements that are hard to reconcile. In Cicero's dialogue (*De Natura Deorum*) we find a railing accusation brought against the Stagirite for his crimes and omissions in this respect. It is there said that Aristotle often is confused ; that he sometimes assigns all divinity to mind ; calls the world God ; says that God puts some one else over the world, and gives to him these parts " that by winding it up again " he may rule the motion of the world and preserve it ; he calls God the heat (*ardorem*) of the heaven — not thinking that the heaven is a part of the world which he elsewhere has called God. Cicero further asks, How could that divine sense of the heaven be preserved in so great celerity of revolution ? Where those so many gods, if we reckon even heaven God ? When he wishes God to be without body he deprives him of all sense, even prudence ; how can the mover of the world be without body ; or, how, always moving, himself be quiet and happy ?<sup>1</sup> In another passage of this dialogue Aristotle

<sup>1</sup> Cicero, de Nat. Deorum, l. 13.

is quoted approvingly as saying, that since the origin of some living beings is in the earth, others in the air, others in water, it is absurd to think no animal is produced in that part which is most fit for generating animals. The stars are generated in the ether, therefore they have sense and intelligence, their motion is voluntary, and they are to be reckoned among the number of gods.<sup>1</sup>

Aristotle was handled more severely by the Christian Fathers. Clement of Alexandria says: "The father of the Peripatetics being ignorant of the Father of all things, thinks him who is called supreme to be the soul of the world; and so, making God the soul of this world he confounds himself. For he is convicted of manifest error who, banishing providence as far as the moon, nevertheless, determines God to be the world, making that without God to be God."<sup>2</sup> Athenagoras giving the views of Aristotle says, that he, "while recognizing one God, made him a composite animal of body and soul, regarding as his body the ether and planets, and the sphere of the fixed stars that revolve in a circle; his soul being the reason which directs the motion of the body, not itself moved, but the cause of the motion of this. Things below heaven are not ruled by the providence of God."<sup>3</sup> Statements so similar to these as not to be worth quoting may be found in Eusebius,<sup>4</sup> Cyril,<sup>5</sup> Justin Martyr,<sup>6</sup> Tatian,<sup>7</sup> Theodoret,<sup>8</sup> and doubtless many other patristic writers. Plutarch makes the God of Aristotle a dweller on the external sphere of the heavens;<sup>9</sup> Diogenes Laertius said, that Aristotle defined God as incorporeal, his providence extending as far as the heavens, himself being unmoved; "all earthly things he disposes according to the harmony and order of the celestial things."<sup>10</sup> Stobaeus says, that Aristotle taught that divine beings animate the spheres, the greatest is the one embracing all, a reasoning animal, blessed, pre-

<sup>1</sup> Cic. de Nat. Deorum, ii. 15.

<sup>2</sup> Legat., p. 28.

<sup>3</sup> Contra Jul., ii. 47, 48.

<sup>7</sup> Orat. adv. Graecos, 244, 303.

<sup>8</sup> De Plac. Phil., i. 7.

<sup>2</sup> Cohort. ad Gentes, 5.

<sup>4</sup> Prep. Evang. xv. 798, 799 sq.

<sup>6</sup> Cohort. ad Gentes, 10, 11, 12.

<sup>9</sup> Graec. Aff. Curat., 833.

<sup>10</sup> Vita Arist., v.

servicing and providing for the heavens.<sup>1</sup> Sextus Empiricus charged that the first God of Aristotle was the extremity of the heaven, and that it was absurd to call this heaven one and two — body and bodiless.<sup>2</sup> More recent historians of philosophy<sup>3</sup> have represented the tendency of Aristotle's views as atheistic, and it is well known that during the Middle Ages his writings suffered, at one time, the partial condemnation of the church; but, perhaps, Martin Luther deserves the credit of pouring forth the most lavish abuse, that the study of Aristotle has received. He thunders against him in the following style :

“What are the universities, unless they are differently ordered from what they have hitherto been, than, as the book of Maccabees (iv. 12) says: *Gymnasia Ephëborum et Græcæ gloriæ*, where there is free living, little teaching of the Holy Scriptures and Christian faith, and only the blind, heathenish master Aristotle rules even more than Christ? My counsel would be that the books of Aristotle, *Physicorum*, *Metaphysicæ*, *de Anima*, *Ethicorum*, which have hitherto been held the best, should be entirely done away with, as well as all others that boast themselves of natural things, in which, however, nothing is taught either of natural or spiritual things; besides, no one has hitherto understood his meaning, and so much valuable time and so many noble souls have been loaded down with unnecessary labor, study, and expense. I venture to say, that a potter has more knowledge of natural things than stands written in those books. It makes my heart ache, that the cursed (*verdampfter*), haughty, rascally (*schalkhalftiger*) heathen, with his false words, has led astray and befooled so many of the best Christians. God has afflicted us with him on account of our sins.

“Though the wretched man teaches in his best book, *de Anima*, that the soul is perishable with the body, no matter how many with vain words have tried to defend him, as though we had not the Holy Scriptures wherein we are infallibly taught of all things of which Aristotle never discovered the slightest scent; yet this dead heathen has overcome and hindered and almost suppressed the books of the living God; so that when I think of such deplorable doings I cannot but feel that the evil spirit introduced the study.

“In like manner the book *Ethicorum*, the very worst of books, is directly opposed to the grace of God and Christian virtues, although it is also reckoned one of the best. Oh, away with such books from all Chris-

<sup>1</sup> Ec. Phys., 1. 23.

<sup>2</sup> Pyr. Hyp., iii. 24. Adv. Math. x. 33.

<sup>3</sup> Meiners, Fülleborn.

tians! Let no one object that I say too much, or disparage what I am ignorant of. Dear friend, I know well what I say; Aristotle is as well known to me as to thee and thy like; I have read and heard him, with more understanding than St. Thomas or Scotus, of which I boast without pride, and, if necessary, can plainly establish."<sup>1</sup>

We may remark, in general, on the above passages, that the representations of Aristotle's views given by the heathen authors, as they write without controversial ends, are more correct than those of the early Fathers. The latter seem to have copied from one another, or from some common source, and to have taken especial pleasure in asserting that Aristotle held things below the moon to be without the providence of God. They were not philosophers, it is no disrespect to say; and their statements are only of worth as showing what was, at least, a common opinion in ancient times. But yet they cannot be said to be altogether unjustified in making these assertions; for there are certainly passages in the extant writings of Aristotle that, taken by themselves, would indicate no proper conception of the Deity.

We find in the treatise "De Coelo"<sup>2</sup> certain remarks that are probably the ground of these statements, although it seems likely that the limitation of the providence of God by the moon is rather an inference from Aristotle's doctrine than an assertion of his. It would be absurd to infer the theology of Isaiah from his speaking of God as, "He that sitteth on the circle of the earth"; and it is equally absurd to judge Aristotle from the remark, "We are accustomed to call what is remotest and loftiest, heaven; in which we say all the divine is situated."<sup>3</sup> Now here Aristotle does not give his own theory, nor does he say that God is the extremity of the heaven, while elsewhere, in hosts of passages, he speaks of the human reason as divine; and yet, this passage is probably the main foundation for the reproaches of the Fathers.

In order to understand the true position of Aristotle, and the cause of his being misunderstood, it will be necessary to

<sup>1</sup> Deutsche Werke, xxi. 344, 345.

<sup>2</sup> De Coelo, i. 9.

<sup>3</sup> Ibid., med.

briefly allude to his theory of the universe. It is a deeply suggestive fact, that what has long been recognized as the first law of motion,—that all motion is uniform and in right lines unless interfered with—to the mind of Aristotle involved the absurdity of an infinite procession. To him the first law was that the most perfect motion is circular.<sup>1</sup> (We cannot forbear suggesting that the latest theory of modern physicists is the “vortex theory,” the circular motion of ultimate atoms.) This, therefore, is the motion of the world, the earth being the centre and at rest. The world is not infinite,<sup>2</sup> but there is an ultimate sphere embracing the interior ones and revolving around them; while beyond this there is nothing, not even void space, nor time;<sup>3</sup> for body can be where place is; vacuum is that where body can be, but is not. But since heaven is the whole and contains all matter, and there can be no body beyond it, there is no space beyond it. In like manner as time is the number of motion,<sup>4</sup> and motion is of body, there can be no time beyond the bounds of the ultimate sphere of the universe. (We must mention, by the way, that the hostility of Aristotle to an infinite series is the basis of much of his reasoning; yet, that he is not positive, but introduces such a train of thought as this by saying: “Unless there be an infinite series, we may say that heaven is one, and there can be no more,” etc.) Nevertheless there follows this significant passage; “what things there are, then, beyond heaven are not of a nature to be in space; nor does time make them grow old; nor is there any change. But with no change, subject to no affections, they have the best and most sufficient life for eternity.”<sup>5</sup> Further, to the same effect, things are moved either by their own nature or by impulse; simple bodies having the principle of motion in themselves, as the heaven, can be neither heavy nor light; hence heaven is a fifth essence superior to earth, water, air, and fire.<sup>6</sup> This heaven is unchangeable and incorruptible, that is, divine; hence heaven and God are akin.<sup>7</sup>

<sup>1</sup> De Coelo, i. 2.<sup>2</sup> Ibid., i. 5.<sup>3</sup> Ibid., i. 9, 6.<sup>4</sup> *Ans. Phys.*, viii. 1. fin.<sup>5</sup> De Coelo, ii. 1.<sup>6</sup> Ibid., i. 3.<sup>7</sup> Ibid., ii. 4; i. 3; ii. 3.

So much as to the divine nature of the heaven; let us next consider its relation to God. In spite of opinions such as we have quoted, Aristotle by no means makes God the soul of the world. It is true that we find remarks to the effect that in the seed of all things there is a kind of warmth which makes them fruitful; not fire, nor any such faculty, but spirit.<sup>1</sup> Also, that warmth is in the whole, so that all things are full of soul.<sup>2</sup> But these words mean simply, that in all living things there is a principle of life, which may be called spirit or soul, but is no more to be identified with God than is the human reason because it is called divine. Aristotle was so far from being a pantheist that it is much more doubtful whether he did, in fact, feel that the providence of God extended this side the moon. What the relations of heaven and God really are, the following passage luminously shows: "Heaven, which is moved, we have shown to be first and simple and ingenerable and incorruptible and entirely immutable; much more is that which moves, it is reasonable to believe. For the first is the mover of the first, the simple of the simple, the incorruptible and ingenerable of the incorruptible and ingenerable. Since then that which is moved, though body, is not changed; much less would that which moves, which is without body, be changed."<sup>3</sup> Now nothing can be called the first cause of motion unless it is itself unmoved; otherwise there would be an infinite series. Hence we have the *eternal, independent, unmoved cause* of motion,<sup>4</sup> elsewhere in Aristotle's writings spoken of as God: "God himself completed the whole, making a continuous development."<sup>5</sup> Further, since motion is eternal it is continuous, and therefore one; hence its cause is one.<sup>6</sup>

We may therefore conclude that Aristotle did not confound God and heaven; that God is incorporeal is stated above and confirmed elsewhere from the fact that, as God is

<sup>1</sup> De Gen. An., ii. 3, med.

<sup>2</sup> De Coelo, ii. 6, med.

<sup>3</sup> De Gen. et Cor., ii. 10, med.

<sup>4</sup> Ibid., iii. 11, med.

<sup>5</sup> Aus. Phys., viii. 6; Met. xii. 7

<sup>6</sup> Aus. Phys., viii. 6.

unmoved he is not composed of parts, which is the condition of motion, but is one and indivisible. We may add, as showing the distinctness with which Aristotle separated God from the heaven, this remark: "It is not reasonable to suppose that the heaven remains eternal, being compelled by a soul, for this would be a burden on the soul and interfere with its happy life—like the labor of Ixion."<sup>1</sup> Yet we cannot infer from this that the heaven is absolutely independent of God; for, as we have just seen, he is the cause of its motion. We must rather say, that God, having once caused the motion of the heaven, rested, and the motion continues; very much as the believers in secondary causes would now maintain.

The statements of Aristotle as to the eternity of the world caused some of his writings to be condemned by the church; although this restriction was soon removed. It is undeniable that he distinctly asserts the eternity of the world; but his use of the word eternal, and his grounds for this belief, are peculiar. In his physical writings, where, it must be observed, he himself states that his reasoning is by the nature of the case probable, not demonstrative, he maintains that the heaven is eternal, because no change has ever been known in it, and its motion is perfect. But that it is eternal in the sense of being self-caused he distinctly denies, and thereby frees the doctrine from any dangerous tendency. In the *Metaphysics* it becomes clear that the eternity of the world is temporal, not logical. The world is created by God; but this creation is not within time, but is co-eternal with God. Motion in itself is eternal, but logically God precedes it, for he is its cause.<sup>2</sup> The question at issue is really the same that is involved in the doctrine of the eternal generation of the Son, or, perhaps better, the eternal procession of the Holy Spirit; when this doctrine is proved unorthodox then Aristotle may be condemned.

Closely connected with this theory is, of course, the doctrine of the eternity of matter, which Aristotle seems to

<sup>1</sup> *De Coelo*, ii. 11.

<sup>2</sup> *Vid.*, *infra*.

imply repeatedly, and so distinctly that one unacquainted with the peculiar force of some of his words would maintain without hesitation, that his theory of the universe is dualistic. In opposition to this view we may remark, in the first place, that Aristotle does not, like Plato, make matter the ground of evil, but rather of both good and evil; that is, it has in itself the possibilities of both good and evil. There is in his view a kind of incompatibility between form and matter, so that the form is often defectively expressed in the sensible object, and this result is evil.<sup>1</sup> But evil as a principle is not admitted in his philosophy.<sup>2</sup>

In the second place we must carefully examine the meaning of the word "exists"; for without a clear notion of the mode in which Aristotle uses this and kindred terms it is impossible to understand his metaphysics. We have already, in speaking of his physical theories unavoidably anticipated, to a certain extent, the explanation of the obscurer portions of his philosophy; but to thoroughly penetrate into its spirit, we shall find it indispensable to define the uses of the words: "cause," "principle," "substance or existence or essence," "matter," "form," "capacity or potentiality," "motion," and "energy or actuality." We shall then be prepared to form a juster conception of his theology.

Causes are fourfold: first, the substance or essence of a thing—the what it is in itself; second, the matter; third, the cause of motion or change—efficient cause; fourth, the final cause, or end of a thing.<sup>3</sup> Thus, to take one of his familiar illustrations, a statue has its substance or formal cause in being a statue, its material cause in the bronze,

<sup>1</sup> "The energy is that which makes things be evil which have only the possibility or potentiality of evil in them. Secondly, in those things which are primary and eternal, there is no evil, no fault, no decay; the capacity for evil lies in nature."—Maurice, *op. cit.* v. i. iii. 5.

<sup>2</sup> "Evil is not anything independent—it is subsequent to capacity. In those things that subsist from a first principle and those that are eternal substances there is nothing evil or imperfect or tending to decay, for such a tendency belongs to what is evil."—*Aus. Phys.*, i. 9; *Met.*, ix. 9.

<sup>3</sup> *Met.*, i. 2, iii. 2; *An. Post.*, ii. 11; *Aus. Phys.*, ii. 3, 7; *De Gen. An.*, i. 1.

its efficient cause in the motion that fashions it proceeding from the mind of the artificer, and its final cause in the purpose for which it is made. In one sense they all answer the question why anything is, or is in a certain way, rather than another. These causes, however, are often reduced to three in number<sup>1</sup>—generally by identifying the end and form,<sup>2</sup> and sometimes by including with these the efficient cause the number is reduced to two.<sup>3</sup> The primary cause is the end, which is even called the cause of the material cause;<sup>4</sup> although the end and substance being identified, substance is called the highest and first.<sup>5</sup>

The first principles are causes in the most general sense.<sup>6</sup> Thus, to keep the same illustration, the brass is the material cause, and the principle is matter. Principle, therefore, stands to cause very nearly in the relation of genus to species; indeed, the question whether genera are principles, is discussed by Aristotle; and it is decided that they are such in analogy at least. But this is so closely connected with the discussion of the Platonic theory of ideas, that we must postpone it till we come to the special treatment of that subject.

The definition of substance, as it is of the utmost importance, is also of the greatest difficulty. On this question Aristotle himself is far from clear; he remarks that the term has many meanings, and that he will use it in different senses—a liberty of which he certainly avails himself. Yet his definition is a clear one, and often repeated: Substance is whatever is not predicated of a subject, while other things are predicated of it.<sup>7</sup> Sometimes Aristotle is careful to insist on this definition; but often, indeed, if not as a rule,

<sup>1</sup> *Met.*, xii. 4.

<sup>2</sup> *De Gen. et Cor.*, i. 1; *Met.*, xii. 2.

<sup>3</sup> *Aus. Phys.*, ii. 7.

<sup>4</sup> *Aus. Phys.*, ii. 9; *Met.*, ix. 8.

<sup>5</sup> *Cat.*, 5; *Met.*, v. 8; vii. 1, 12; *An. Post.*, ii. 11; *Met.*, i. 2; iii. 2.

<sup>6</sup> "All causes are first principles," iv. 1. fin. "Common to all first principles is the being the origin from which a thing is, or is produced, or is known."—*Ibid.*, cf. *Met.*, xii. 2; *Aus. Phys.*, i. 6, 7, 9. Three principles are here asserted to exist.

<sup>7</sup> *Met.*, iv. 9; vii. 17.

he uses the word in a popular sense. Thus he often speaks of matter as substance; sometimes remarking that it is not strictly so, but more often, perhaps, not qualifying his statement. This is the more unfortunate, because it is entirely inconsistent with the spirit of his philosophy to regard matter as substance, and when there is real danger of confusion he is apt to distinguish, but a casual reader might easily be misled. Species, too, he calls substances, but in a secondary sense.<sup>1</sup> Substance is used in four senses: the formal cause, the universal, the genus, and the subject, properly the primary subject;<sup>2</sup> but this does not mean that Aristotle regards all these uses as correct, as he in the same passage declares that matter is used to mean substance, but not properly. Again, form is often called substance; but here, again, we find qualifications — it is not the form, but the union of form and matter; form is prior to matter, but the compound is prior to both.<sup>3</sup> Substance is what is first in reason, knowledge, time, nature, and definition. No one of the rest of the categories is capable of a separate subsistence.<sup>4</sup> The definition, essence or formal cause of a thing, may also be called its substance.<sup>5</sup> But the complete definition of substance must be postponed until we have the additional idea of energy.

Aristotle's use of the term "form" is so important that it will require a special essay to do it justice; but we may provisionally remark that he allows no independent existence to forms, apart from the singulars that exhibit them. We have seen that the end is sometimes called the form, and the same is true of the substance and the definition; yet Aristotle is satisfied with none of these. He wishes to give distinctness to the idea of form, but is perpetually hampered with a fear that he may make the form too real, and thus expose himself to the objections he brings against Plato. He partly succeeds in his attempt by contrasting form and privation,

<sup>1</sup> Met., v. 7, 8; vii. 1, 12; Cat., 5.

<sup>2</sup> Met., vii. 3. Universals are not substances, viii. 1.

<sup>3</sup> Ibid.

<sup>4</sup> Met., vii. 1.

<sup>5</sup> Met., v. 8 fin.; vii. 5 fin.

which may be defined as absence of predicates.<sup>1</sup> In this way we might call form the presence of qualities, and thus again we come back to the definition of a thing — the “what” it is. At any rate, form, as well as privation, is a cause or first principle; and if matter is added as a third principle, we can account for change, because change is from opposite to opposite. We find, then, that Aristotle finally settles on these three principles:<sup>2</sup> form, privation, and matter. Yet the importance of privation is not great; it seems to be rather a negative aspect of form than anything necessary as a principle.

Here, now, we might suppose, Aristotle has quite committed himself to the admission of matter as an independent principle, and thus to dualism, if not, indeed, to materialism. It is just here, however, that his genius manifests itself in what is decidedly the grand characteristic of his philosophy, the notion of the “energy,” or “entelechy,” as distinguished from capacity or mere potentiality. Energy is actuality; it is force; it is life; it is especially mind, and still more especially the divine mind. In his view, the existence of matter is potential merely; it is a kind of condition of the energy, and has no independent actual existence of its own.<sup>3</sup>

In illustration of this important idea, we subjoin a number of passages from the historians of philosophy. As to form, Maurice remarks:

“That which is generated is the whole substance, consisting of matter and form. But the form, properly speaking, is not generated. It is reproduced in each particular subject in combination with a certain matter, and it becomes a new and peculiar form in virtue of that combination.”<sup>4</sup>

“The εἶδος, then, which forms the essential in each thing which makes it be that which it is, must be looked upon as individualized by the ὕλη with which it is connected. Apart from the modification which it thus undergoes, it is only a logical existence, the highest genus to which it is ultimately referred being pre-eminently that which can only be contem-

<sup>1</sup> The absence of a quality, where there is capacity for its existence. — Met., v. 22.

<sup>2</sup> Met., xii. 2.

<sup>3</sup> Met., xii. 5.

<sup>4</sup> Maurice, Hist. Anc. Philos., in the Encyc. Metr., vi. iii. 5.

plated by and in the mind. The *εἶδος* or *μορφή* is an energy; the *ὕλη* is a *δύναμις* or capacity, implying and requiring the action or co-operation of the energy to produce the result. *᾽Οὐσία*, as we said before, is the synthesis of these; omitting the *ἐνέργεια*, you come merely to certain material elements and combinations which do not in any way give you the actual things you are examining."<sup>1</sup>

As to the significance of matter, we have very much the same testimony:—

“In the mind of Aristotle the notion of matter is invariably combined with that of *becoming*. Now, out of nothing comes nothing. There must therefore antecedently be something out of which that which becomes may become. But now every becoming is a passage from opposite into opposite, as Plato had already shown. As, then, an opposite cannot become its opposite, therefore the substratum of all becoming must be a something which passes from opposite to opposite, and in this passage remains itself. This permanent substratum is what Aristotle calls matter.”<sup>2</sup>

“What is substance? Is it the form, or the matter, or the union of both? We can regard matter as substance in so far as it is the subject of different kinds of change, as that of becoming and decaying, form and privation; yet only as the capacity for changes, not as the reality of them, can it be substance; so that the reality of substance rests in the form, so that it is to be sought in the differences of form. And yet the forms are not substances, but an *analogon* of substances; the substance is the energy expressing itself in them, which is different for different matter; this must be eternal, the most real substance; this first substance, of course, cannot be defined.”<sup>3</sup>

We have still to consider what motion is. It is plain, from what we have already seen, that it is closely connected with energy; and sometimes Aristotle seems to identify them. Yet he is careful, at times, to distinguish the ideas, which he does by calling motion an imperfect energy, as not containing its end in itself.<sup>4</sup> It is a change from opposite to

<sup>1</sup> Maurice, *Hist. Anc. Philos.*, in the *Encyc. Metr.*, vi. iii. 5.

<sup>2</sup> Ritter, *Hist. Anc. Philos.*, iii. 112; *Met.*, xii. 2; ix. 7; xii. 10; vii. 7; viii. 1; *Aus. Phys.*, i. 9.

<sup>3</sup> Brandis, *Gesch. d. Entwicklung d. Gr. Phil.*, i. 471; *Met.*, viii. 1, *passim*.

<sup>4</sup> *Aus. Phys.*, iii. 2; *Met.*, ix. 6; ix. 9. In *De An.*, ii. 5 the question is discussed as follows: Motion is a kind of energy but imperfect. For everything suffers and is moved by what is creative and exist in energy. To distinguish between potentiality and energy—we may call a man intelligent because that is the nature of man; or we call him intelligent who possesses the science of grammar. One is so by genus and substance, the other because when he wishes to

opposite.<sup>1</sup> It may be regarded as a manifestation of energy, just as in modern scientific language it would be called a manifestation of force.

We have, then, matter subsisting as a mere potentiality, a capacity of suffering change into the opposites, form and privation, and motion,—which is the change or manifestation of energy. Now, as all motion implies a moving cause, we have to inquire whether matter and motion are eternal—whether the process of change involves an infinite progression or evolution. On this point Aristotle is clear enough. He invariably objects to an infinite series of causes, generally on the ground that all scientific knowledge would thus be impossible.<sup>2</sup> There must be, therefore, a prime moving cause, itself unmoved, and this must be eternal and necessary. The great importance of this point requires us to quote freely his own language :

“There is a perpetual, unmoved mover. There is something by necessity both absolutely and accidentally without change. This will be one, rather than many. It is necessary always, and therefore continually.”<sup>3</sup>

“The first moving cause moves with eternal motion and infinite time. It must, therefore, be indivisible and without parts and without (bodily) size.”<sup>4</sup>

“If, therefore, everything which is moved is necessarily moved by something else, and either by that which is moved by something else, or

contemplate he can do it. But besides these is the one who already contemplates and is properly in energy intelligent. Both the first are intelligent potentially. It is not right to say that he who knows, by knowing is changed. Also, *De Gen. et Cor.*, ii. 9. For to suffer and be moved is the part of matter, but to act and move of another power. Cf. Maurice: “It is then possible for a thing to have the capacity of being and not to be, and to have the capacity of not being and to be; that of which it is the capacity takes place when something is superadded to it which is energy. Energy is analogous to motion. The difference is in this, that every motion is incomplete, tending towards an end, but not including the end in itself; that energy has an end in itself, and that it does not involve a pause or a termination. Learning, building, walking, all imply a termination. Seeing, thinking, being happy, imply no termination; these are energies. — *Hist. Anc. Philos.*, in *Encyc. Metr.*, vi. iii. 5; cf. *Met.*, ix. 3.

<sup>1</sup> *Aus. Phys.*, iii. 1.

<sup>2</sup> *Met.*, ii. 2.

<sup>3</sup> *Aus. Phys.*, viii. 6; *Met.*, xii. 6.

<sup>4</sup> *Aus. Phys.*, viii. fin.

by that which is not moved by something else; and if it is moved by that which is moved by another motion, there must be some primary moving thing which is not moved by anything else; and if this is first there is no need of another. For it is impossible that that should continue into infinity which moves and is moved by something else, since in infinity there is nothing first. Hence that which first moves is moved, but not by anything else, but is itself necessarily first moved by itself. Since, therefore, there is something ultimate which can be excited by motion, but does not have the principle of motion, and that also which is moved not by itself but by another, it is consistent with reason, not to say necessary, there is a third thing that moves, being itself unmoved."<sup>1</sup>

"Everything that is moved is divisible, and is necessarily moved by something. Motion may be infinite in one sense, in finite time."<sup>2</sup>

In the seventh chapter of the twelfth book of the *Metaphysics*, this idea is most clearly and connectedly brought out. There, too, the final step in the argument is taken — the identifying of the first unmoved, moving cause with mind; that is, the necessity of the existence of an infinite mind possessing all perfections; a mind omnipotent, eternal, and unchangeable, holy, and happy; a being free from all matter or possibility of corruption — infinite power and eternal life. The grandeur of this chapter, when it is once understood, almost equals that of the sublimest passages in the Old Testament. Nowhere else in the writings of Aristotle do we find such decisive expressions as these; and we could hardly expect that we should. Aristotle writes as a philosopher, and we seldom find a trace of personality in any of his works. He himself excites our admiration as an intellect, not as a man; and it is in this clear, dry light of abstract existence that his God is presented to us.<sup>3</sup>

<sup>1</sup> *Aus. Phys.*, viii. 5.

<sup>2</sup> *Ibid.*, vii. 1.

<sup>3</sup> We connect the scattered passages bearing on the argument. The efficient cause molds matter into form; form is thus generated *per accidens*, and has no generating power itself. — *Met.*, vii. 8; *De Gen. et Cor.* ii. 9. If anything is produced, there is a from which and a by which. — *Met.*, i. 3. What is in capacity and in energy are somehow one, so that the cause is, as it were, that moving from capacity to energy. — *Met.*, viii. 6. To be is better than not to be. — *De Gen. et Cor.*, ii. 10. All order is reason. — *Aus. Phys.*, viii. 1. Hence, Anaxagoras was right in saying that mind was without passion and unmixed, since he made it the principle of motion. — *Aus. Phys.*, viii. 5; *Met.*, xii. 6. That which

The chapter is, in substance, as follows: There is an eternal, immovable substance, subsisting in energy without matter, which is subsequent to it. This is the first cause of motion, as that which is desirable and of the nature of mind causes motion. God excites love; he is the consummation of desire and thought. Desire and thought and will are, in the highest sense, what is desired and thought and willed; so that God is the ideal of all aspiration and choice. Hence he is the Final Cause of all things; subsisting by necessity, not external, but that of his own nature, in the most excellent way. The best and highest life, that is ours only in the short moments of pure intellection, is the eternal life of God. Such a life is pure happiness. If God continually enjoys the blessed state that we sometimes enjoy, it is admirable; if a more blessed state, it is more admirable. But such a state is his. He is life, the best and the eternal life. The most real and purest existence is thought, and this is absolutely "the best" in itself. Hence the highest thought, the divine intelligence, thinks the highest "best," that is, itself. The thought of this divine intelligence is the thought of thought. Such a being is not in this or that portion of time, but in the whole eternally.

We see plainly from this, that matter, in Aristotle's doctrine, is nothing more than the possibility of existence; it has none of the properties of matter, as we understand it; it does not occupy space, nor can it be felt. Its actual existence is determined by God, who gives it all its properties. This is really nothing more than the orthodox doctrine of creation.

always exists, as always existing, is not in time; for it is not embraced by time nor measured in its existence by time, nor suffers anything from time. — *Aus. Phys.*, iv. 12. The energy of God is immortal; for this is eternal life. — *De Coelo*, ii. 3, 6. God is in the universe; and again, all things are in him, for all are moved by the divinity existing in us. — *Eth. Eud.*, vii. 14. Cf. *Ritter on Phys.*, ii. 2; *Met.*, v. 16: "The perfect essence of a thing which is one with its perfect activity, appears to be also its proper end; this is the best that it can accomplish; this is the good after which as its end everything strives in order to be in the full activity of its being; man himself, even, is in a certain manner an end, inasmuch as his essence dwells within him in full activity." — *Hist. Anc. Philos.*, iii. 143.

If God created the heavens and the earth, they must have previously potentially existed. Indeed, so far as the account in Genesis goes, matter may have been actually existing. But Aristotle distinctly maintains that energy is prior to capacity, in definition and in substance, because the first capacity is that of energizing, and things eternal are in substance before things perishable, and nothing potential is eternal,—because it is not necessary. In familiar theological language, whatever is subject to change must have a cause of its changes, and not exist necessarily. In one sense, energy is prior in time; for always an entity in energy arises from an entity in capacity by means of an entity in energy. One who learns to play on the harp learns by playing on the harp. The learner must already possess an energy.<sup>1</sup> The Socratic difficulty about the impossibility of learning, which is kindred with Zeno's paradox about motion, and compelled Plato to invent the *anamnesis*, or pre-existence of the soul, is thus more simply solved by Aristotle. The contrast between this view and Darwinism should also be noted. Aristotle maintains that everything that is being produced advances toward a first principle and an end; for the final cause is a first principle, and the production is on account of the end. Energy is an end, and on account of it potentiality is assumed. Animals do not see in order that they may have the power of seeing, but they have the power of seeing in order that they may see. And so it is with the seed and the plant, and with free-will in the rational subject.<sup>2</sup>

Aristotle is said to have written a treatise about the good, which has not come down to us. Doubtless we should find there a more complete presentation of the moral attributes of God. As it is, we can only infer from the general spirit of his philosophy, and from scattered passages, principally in his *Ethics*, what his views of the relations of God to man really were. In general, we may say that the life of man, in so far as it is noble and virtuous, resembles the divine

<sup>1</sup> *Met.*, ix. 8, 9.

<sup>2</sup> *Ibid.*, ix. 5, 6, 8.

life.<sup>1</sup> The noblest thing is mind, and the noblest life is the exercise of mind. God is happy,<sup>2</sup> Aristotle often says; but we do not find the Christian idea that he is interested in man with a fatherly love.<sup>3</sup> Certainly no evil quality can be predicated of God;<sup>4</sup> but we do wrong to apply the ordinary human terms to divine virtues. We may say, then, with justice, that the God of Aristotle is a being whom men may worship and be drawn toward, perfect in what theologians call the natural attributes; but that he is not a being that looks with a loving and pitying eye on men. Yet we cannot regard it as an imputation on the great philosopher that he did not discern what only revelation has disclosed. It is judging by a severe standard, indeed, if men are to be blamed for not discovering what God has chosen to lay open only through his dearly-beloved Son.

Numerous passages in the writings of Aristotle speak of the gods as if they were many. Indeed, in the chapter following his establishment of the existence of one God, we

<sup>1</sup> Happiness is connected with virtue, and especially the highest virtue, which will be what is best in man, whether this is mind or something else higher than mind. But mind is the highest. — Nik. Eth., x. 7, 8.

<sup>2</sup> After speaking of the perfect happiness of the virtuous life, Aristotle remarks that such a life is better than the nature of man affords; for it is not in that he is a man that any one enjoys this life, but in so far as there is anything divine in him. If, then, mind compared with man is something divine, the life belonging to mind compared with human life will be the divine. We must do everything to live in accordance with that part which is the best in us — which, though little in size, in power and honor far excels all the rest. We hold the gods most blessed and happy; but we cannot apply to them our titles of the virtues — we cannot call them just, brave, liberal, temperate, etc., for this would be absurd; yet no one thinks they do not live, nor do we suppose them to sleep like Endymion. There is nothing left but contemplation, which is, therefore, the best and happiest life. All the life of the immortal gods is happy; that of men, so far as it resembles theirs. — Nik. Eth., x. 7, 8; vii. 1; cf. Met., xii. 9. Every one is happy in proportion as he is virtuous and wise; since for this we have the example of God himself, who is entirely happy, not from any external good, but in himself and because he is such by nature. — Pol., vii. 1; Nik. Eth., vii. 15.

<sup>3</sup> Yet God rules providently and not imperiously. — Nik. Eth., vii. 15. But the order in the universe is compared to that of an army, where the general is the cause of the good order. — Met., xii. 10. This seems to be τὸ ἀγαθόν, which is especially a first principle.

<sup>4</sup> God cannot envy. — Met., i. 2.

find him speaking of many divine beings as if they were independent; a fact that causes Vater, in his able "*Vindiciae Theologiae Aristotelis*," to reject the whole twelfth book, and depend mainly on the reasoning in the physical treatises. But it is plain that Aristotle regards the beings that animate the celestial spheres as dependent on the first God. The existence of such spirits, it is well known, was maintained by Kepler, and is no more derogatory to the power of God than is the existence of angels. Indeed, there is a story (quoted by Lewes) that there was a church at Rome, in the Middle Ages, dedicated to these seven spirits.

We cannot take leave of this subject without once more calling attention to the striking resemblances of modern scientific thought to the great truths of Aristotle's philosophy. Especially in the discussion of force (or energy, as it is now in certain senses called — the very word chosen by Aristotle) do we find that the ancient philosopher was not far behind the modern. As Aristotle, after his prolonged studies in the world of nature, turned his mind with a reverent spirit toward the mysteries of the universe, so the modern investigator grows more religious as he approaches the impassable limits of sense, and looks forth into the infinite. Both alike are blind to the love that the Christian knows is there; but as they feel their own weakness, and find the trusty instruments that have served them so faithfully vanish from their hands, both alike are compelled to acknowledge with humility and awe the existence of an inscrutable power that molds all things in accordance with the laws of its own transcendent nature.