

The Creation of the World

De Opificio Mundi

by Philo Judaeus, translated by C. D. Yonge

(vol. 1, pp. 1-52)

I. (1) Of other lawgivers, some have set forth what they considered to be just and reasonable, in a naked and unadorned manner, while others, investing their ideas with an abundance of amplification, have sought to bewilder the people, by burying the truth under a heap of fabulous inventions. (2) But Moses, rejecting both of these methods, the one as inconsiderate, careless, and unphilosophical, and the other as mendacious and full of trickery, made the beginning of his laws entirely beautiful, and in all respects admirable, neither at once declaring what ought to be done or the contrary, nor (since it was necessary to mould beforehand the dispositions of those who were to use his laws) inventing fables himself or adopting those which had been invented by others.

(3) And his exordium, as I have already said, is most admirable; embracing the creation of the world, under the idea that the law corresponds to the world and the world to the law, and that a man who is obedient to the law, being, by so doing, a citizen of the world, arranges his actions with reference to the intention of nature, in harmony with which the whole universal world is regulated. (4) Accordingly no one, whether poet or historian, could ever give expression in an adequate manner to the beauty of his ideas respecting the creation of the world; for they surpass all the power of language, and amaze our hearing, being too great and venerable to be adapted to the sense of any created being. (5) That, however, is not a reason for our yielding to indolence on the subject, but rather from our affection for the Deity we ought to endeavour to exert ourselves even beyond our powers in describing them: not as having much, or indeed anything to say of our own, but instead of much, just a little, such as it may be probable that human intellect may attain to, when wholly occupied with a love of and desire for wisdom.

(6) For as the smallest seal receives imitations of things of colossal magnitude when engraved upon it, so perchance in some instances the exceeding beauty of the description of the creation of the world as recorded in the Law, overshadowing with its brilliancy the souls of those who happen to meet with it, will be delivered to a more concise record after these facts have been first premised which it would be improper to pass over in silence.

II. (7) For some men, admiring the world itself rather than the Creator of the world, have represented it as existing without any maker, and eternal; and as impiously as falsely have represented God as existing in a state of complete inactivity, while it would have been right on the other hand to marvel at the might of God as the creator and father of all, and to admire the world in a degree not exceeding the bounds of moderation.

(8) But Moses, who had early reached the very summits of philosophy,¹ and who had learnt from the oracles of God the most numerous and important of the principles of nature, was well aware that it is indispensable that in all existing things there must be an active cause, and a passive subject; and that the active cause is the intellect of the universe, thoroughly unadulterated and thoroughly unmixed, superior to virtue and superior to science, superior even to abstract good or abstract beauty; (9) while the passive subject is something inanimate and incapable of motion by any intrinsic power of its own, but having been set in motion, and fashioned, and endowed with life by the intellect, became transformed into that most perfect work, this world. And those who describe it as being uncreated, do, without being aware of it, cut off the most useful and necessary of all the qualities which tend to produce piety, namely, providence: (10) for reason proves that the father and creator has a care for that which has been created; for a father is anxious for the life of his children, and a workman aims at the duration of his works, and employs every device imaginable to ward off everything that is pernicious or injurious, and is desirous by every means in his power to provide everything which is useful or profitable for them. But with regard to that which has not been created, there is no feeling of interest as if it were his own in the breast of him who has not created it.

(11) It is then a pernicious doctrine, and one for which no one should contend, to establish a system in this world, such as anarchy is in a city, so that it should have no superintendant, or regulator, or judge, by whom everything must be managed and governed.

(12) But the great Moses, thinking that a thing which has not been uncreated is as alien as possible from that which is visible before our eyes (for everything which is the subject of our senses exists in birth and in changes, and is not always in the same condition), has attributed eternity to that which is invisible and discerned only by our intellect as a kinsman and a brother, while of that which is the object of our external senses he had predicated generation as an appropriate description. Since, then, this world is visible and the object of our external senses, it follows of necessity that it must have been created; on which account it was not without a wise purpose that he recorded its creation, giving a very venerable account of God.

III. (13) And he says that the world was made in six days, not because the Creator stood in need of a length of time (for it is natural that God should do everything at once, not merely by uttering a command, but by even thinking of it); but because the things created required arrangement; and number is akin to arrangement; and, of all numbers, six is, by the laws of nature, the most productive: for of all the numbers, from the unit upwards, it is the first perfect one, being made equal to its parts, and being made complete by them; the number three being half of it, and the number two a third of it, and the unit a sixth of it, and, so to say, it is formed so as to be both male and female, and is made up of the power of both natures; for in existing things the odd number is the male, and the even number is the female; accordingly, of odd numbers the first is the number three, and of even numbers the first is two, and the two numbers multiplied together make six. (14) It was fitting therefore, that the world, being the most perfect of created things, should be made according to the perfect number, namely, six: and, as it was to

¹This is in accordance with the description of him in the Bible, where he is represented as being learned in all the wisdom of the Egyptians.

have in it the causes of both, which arise from combination, that it should be formed according to a mixed number, the first combination of odd and even numbers, since it was to embrace the character both of the male who sows the seed, and of the female who receives it. (15) And he allotted each of the six days to one of the portions of the whole, taking out the first day, which he does not even call the first day, that it may not be numbered with the others, but entitling it one, he names it rightly, perceiving in it, and ascribing to it the nature and appellation of the limit.

IV. We must mention as much as we can of the matters contained in his account, since to enumerate them all is impossible; for he embraces that beautiful world which is perceptible only by the intellect, as the account of the first day will show: (16) for God, as apprehending beforehand, as a God must do, that there could not exist a good imitation without a good model, and that of the things perceptible to the external senses nothing could be faultless which was not fashioned with reference to some archetypal idea conceived by the intellect, when he had determined to create this visible world, previously formed that one which is perceptible only by the intellect, in order that so using an incorporeal model formed as far as possible on the image of God, he might then make this corporeal world, a younger likeness of the elder creation, which should embrace as many different genera perceptible to the external senses, as the other world contains of those which are visible only to the intellect.

(17) But that world which consists of ideas, it were impious in any degree to attempt to describe or even to imagine: but how it was created, we shall know if we take for our guide a certain image of the things which exist among us.

When any city is founded through the exceeding ambition of some king or leader who lays claim to absolute authority, and is at the same time a man of brilliant imagination, eager to display his good fortune, then it happens at times that some man coming up who, from his education, is skilful in architecture, and he, seeing the advantageous character and beauty of the situation, first of all sketches out in his own mind nearly all the parts of the city which is about to be completed—the temples, the *gymnasia*, the *prytanea*, and markets, the harbour, the docks, the streets, the arrangement of the walls, the situations of the dwelling houses, and of the public and other buildings. (18) Then, having received in his own mind, as on a waxen tablet, the form of each building, he carries in his heart the image of a city, perceptible as yet only by the intellect, the images of which he stirs up in memory which is innate in him, and, still further, engraving them in his mind like a good workman, keeping his eyes fixed on his model, he begins to raise the city of stones and wood, making the corporeal substances to resemble each of the incorporeal ideas. (19) Now we must form a somewhat similar opinion of God, who, having determined to found a mighty state, first of all conceived its form in his mind, according to which form he made a world perceptible only by the intellect, and then completed one visible to the external senses, using the first one as a model.

V. (20) As therefore the city, when previously shadowed out in the mind of the man of architectural skill had no external place, but was stamped solely in the mind of the workman, so in the same manner neither can the world which existed in ideas have had any other local

position except the divine reason which made them; for what other place could there be for his powers which should be able to receive and contain, I do not say all, but even any single one of them whatever, in its simple form? (21) And the power and faculty which could be capable of creating the world, has for its origin that good which is founded on truth; for if any one were desirous to investigate the cause on account of which this universe was created, I think that he would come to no erroneous conclusion if he were to say as one of the ancients did say: "That the Father and Creator was good; on which account he did not grudge the substance a share of his own excellent nature, since it had nothing good of itself, but was able to become everything." (22) For the substance was of itself destitute of arrangement, of quality, of animation, of distinctive character, and full of all disorder and confusion; and it received a change and transformation to what is opposite to this condition, and most excellent, being invested with order, quality, animation, resemblance, identity, arrangement, harmony, and everything which belongs to the more excellent idea.

VI. (23) And God, not being urged on by any prompter (for who else could there have been to prompt him?) but guided by his own sole will, decided that it was fitting to benefit with unlimited and abundant favours a nature which, without the divine gift, was unable to itself to partake of any good thing; but he benefits it, not according to the greatness of his own graces, for they are illimitable and eternal, but according to the power of that which is benefited to receive his graces. For the capacity of that which is created to receive benefits does not correspond to the natural power of God to confer them; since his powers are infinitely greater, and the thing created being not sufficiently powerful to receive all their greatness would have sunk under it, if he had not measured his bounty, allotting to each, in due proportion, that which was poured upon it. (24) And if any one were to desire to use more undisguised terms, he would not call the world, which is perceptible only to the intellect, any thing else but the reason of God, already occupied in the creation of the world; for neither is a city, while only perceptible to the intellect, anything else but the reason of the architect, who is already designing to build one perceptible to the external senses, on the model of that which is so only to the intellect—(25) this is the doctrine of Moses, not mine. Accordingly he, when recording the creation of man, in words which follow, asserts expressly, that he was made in the image of God—and if the image be a part of the image, then manifestly so is the entire form, namely, the whole of this world perceptible by the external senses, which is a greater imitation of the divine image than the human form is. It is manifest also, that the archetypal seal, which we call that world which is perceptible only to the intellect, must itself be the archetypal model, the idea of ideas, the Reason of God.

VII. (26) Moses says also; "In the beginning God created the heaven and the earth:" taking the beginning to be, not as some men think, that which is according to time; for before the world time had no existence, but was created either simultaneously with it, or after it; for since time is the interval of the motion of the heavens, there could not have been any such thing as motion before there was anything which could be moved; but it follows of necessity that it received existence subsequently or simultaneously. It therefore follows also of necessity, that time was created either at the same moment with the world, or later than it—and to venture to assert that it is older than the world is absolutely inconsistent with philosophy. (27) But if the beginning

spoken of by Moses is not to be looked upon as spoken of according to time, then it may be natural to suppose that it is the beginning according to number that is indicated; so that, "In the beginning he created," is equivalent to "first of all he created the heaven;" for it is natural in reality that that should have been the first object created, being both the best of all created things, and being also made of the purest substance, because it was destined to be the most holy abode of the visible Gods who are perceptible by the external senses; (28) for if the Creator had made everything at the same moment, still those things which were created in beauty would no less have had a regular arrangement, for there is no such thing as beauty in disorder. But order is a due consequence and connection of things precedent and subsequent, if not in the completion of a work, at all events in the intention of the maker; for it is owing to order that they become accurately defined and stationary, and free from confusion.

(29) In the first place therefore, from the model of the world, perceptible only by intellect, the Creator made an incorporeal heaven, and an invisible earth, and the form of air and of empty space: the former of which he called darkness, because the air is black by nature; and the other he called the abyss, for empty space is very deep and yawning with immense width. Then he created the incorporeal substance of water and of air, and above all he spread light, being the seventh thing made; and this again was incorporeal, and a model of the sun, perceptible only to intellect, and of all the lightgiving stars, which are destined to stand together in heaven.

VIII. (30) And air and light he considered worthy of the pre-eminence. For the one he called the breath of God, because it is air, which is the most life-giving of things, and of life the causer is God; and the other he called light, because it is surpassingly beautiful: for that which is perceptible only by intellect is as far more brilliant and splendid than that which is seen, as I conceive, the sun is than darkness, or day than night, or the intellect than any other of the outward senses by which men judge (inasmuch as it is the guide of the entire soul), or the eyes than any other part of the body. (31) And the invisible divine reason, perceptible only by intellect, he calls the image of God. And the image of this image is that light, perceptible only by the intellect, which is the image of the divine reason, which has explained its generation. And it is a star above the heavens, the source of those stars which are perceptible by the external senses, and if any one were to call it universal light he would not be very wrong; since it is from that the sun and the moon, and all the other planets and fixed stars derive their due light, in proportion as each has power given to it; that unmingled and pure light being obscured when it begins to change, according to the change from that which is perceptible only by the intellect, to that which is perceptible by the external senses; for none of those things which are perceptible to the external senses is pure.

IX. (32) Moses is right also when he says, that "darkness was over the face of the abyss." For the air is in a manner spread above the empty space, since having mounted up it entirely fills all that open, and desolate, and empty place, which reaches down to us from the regions below the moon. (33) And after the shining forth of that light, perceptible only to the intellect, which existed before the sun, then its adversary darkness yielded, as God put a wall between them and separated them, well knowing their opposite characters, and the enmity existing between their natures. In order, therefore, that they might not war against one another from being continually

brought in contact, so that war would prevail instead of peace, God, burning want of order into order, did not only separate light and darkness, but did also place boundaries in the middle of the space between the two, by which he separated the extremities of each. For if they had approximated they must have produced confusion, preparing for the contest, for the supremacy, with great and unextinguishable rivalry, if boundaries established between them had not separated them and prevented them from clashing together, (34) and these boundaries are evening and morning; the one of which heralds in the good tidings that the sun is about to rise, gently dissipating the darkness: and evening comes on as the sun sets, receiving gently the collective approach of darkness. And these, I mean morning and evening, must be placed in the class of incorporeal things, perceptible only by the intellect; for there is absolutely nothing in them which is perceptible by the external senses, but they are entirely ideas, and measures, and forms, and seals, incorporeal as far as regards the generation of other bodies. (35) But when light came, and darkness retreated and yielded to it, and boundaries were set in the space between the two, namely, evening and morning, then of necessity the measure of time was immediately perfected, which also the Creator called "day." and He called it not "the first day," but "one day;" and it is spoken of thus, on account of the single nature of the world perceptible only by the intellect, which has a single nature.

X. (36) The incorporeal world then was already completed, having its seat in the Divine Reason; and the world, perceptible by the external senses, was made on the model of it; and the first portion of it, being also the most excellent of all made by the Creator, was the heaven, which he truly called the firmament, as being corporeal; for the body is by nature firm, inasmuch as it is divisible into three parts; and what other idea of solidity and of body can there be, except that it is something which may be measured in every direction? therefore he, very naturally contrasting that which was perceptible to the external senses, and corporeal with that which was perceptible only by the intellect and incorporeal, called this the firmament. (37) Immediately afterwards he, with great propriety and entire correctness, called it the heaven, either because it was already the boundary² of everything, or because it was the first of all visible things which was created; and after its second rising he called the time day, referring the entire space and measure of a day to the heaven, on account of its dignity and honour among the things perceptible to the external senses.

XI. (38) And after this, as the whole body of water in existence was spread over all the earth, and had penetrated through all its parts, as if it were a sponge which had imbibed moisture, so that the earth was only swampy land and deep mud, both the elements of earth and water being mixed up and combined together, like one confused mass into one undistinguishable and shapeless nature, God ordained that all the water which was salt, and destined to be a cause of barrenness to seeds and trees should be gathered together, flowing forth out of all the holes of the entire earth; and he commanded dry land to appear, that liquid which had any sweetness in it being left in it to secure its durability. For this sweet liquid, in due proportions, is as a sort of glue for the different substances, preventing the earth from being utterly dried up, and so becoming unproductive and barren, and causing it, like a mother, to furnish not only one kind of nourishment, namely meat, but both sorts at once, so as to supply its offspring with both meat

²Philo means that *ouranos* was derived either from *horos*, a boundary, or from *horaô*, to see, *horatos*, visible.

and drink; wherefore he filled it with veins, resembling breasts, which, being provided with openings, were destined to pour forth springs and rivers. (39) And in the same way he extended the invisible irrigations of dew pervading every portion of arable and deep-soiled land, to contribute to the most liberal and plenteous supply of fruits. Having arranged these things, he gave them names, calling the day, "land," and the water which was separated from it he called "sea."

XII. (40) After this he began to adorn the land, for he bade it bring forth grass, and bear corn, producing every kind of herb, and plains clothed with verdure, and everything which was calculated to be fodder for cattle, or food for men. Moreover he commanded every kind of tree to spring up, omitting no kind, either of those which are wild or of those which are called cultivated. And simultaneously with their first production he loaded them all with fruit, in a manner different from that which exists at present; (41) for now the different fruits are produced in turn, at different seasons, and not all together at one time; for who is there who does not know that first of all comes the sowing and the planting; and, in the second place, the growth of what has been sown and planted, in some cases the plants extending their roots downwards like foundations, and in others raising themselves upwards to a height and displaying long stalks? After that come the buds, and the putting forth of leaves, and then after everything else comes the production of fruit. And again, the fruit when first produced is not perfect, but it contains in itself all kinds of change, with reference both to its quantity in regard of magnitude, and to its qualities in its multiform appearance: for the fruits is produced at first like indivisible grains, which are hardly visible from their diminutive size, and which one might correctly enough pronounce to be the first things perceptible by the external senses; and afterwards by little and little, from the nourishment conveyed in channels, which waters the tree, and from the wholesome effect of the breezes, which blow air at the same time cold and gentle, the fruit is gradually vivified, and nursed up, and increased, advancing onward to its perfect size; and with its change of magnitude it changes also its qualities, as if it were diversified with varying colours by pictorial science.

XIII. (42) But in the first creation of the universe, as I have said already, God produced the whole race of trees out of the earth in full perfection, having their fruit not incomplete but in a state of entire ripeness, to be ready for the immediate and undelayed use and enjoyment of the animals which were about immediately to be born. (43) Accordingly he commanded the earth to produce these things. And the earth, as though it had for a long time been pregnant and travailing, produced every sort of seed, and every sort of tree, and also of fruit, in unspeakable abundance; and not only were these produced fruits to be food for living animals, but enough also to serve as a preparation for the continuous production of similar fruits hereafter; covering substances consisting of seed, in which are the principles of all plants undistinguishable and invisible, but destined hereafter to become manifest and visible in the periodical maturity of the fruit. (44) For God thought fit to endue nature with a long duration, making the races that he was creating immortal, and giving them a participation in eternity. On which account he led on and hastened the beginning towards the end, and caused the end to turn backwards to the beginning: for from plants comes fruit, as the end might come from the beginning; and from the

fruit comes the seed, which again contains the plant within itself, so that a fresh beginning may come from the end.

XIV. (45) And on the fourth day, after he had embellished the earth, he diversified and adorned the heaven: not giving the precedence to the inferior nature by arranging the heaven subsequently to the earth, or thinking that which was the more excellent and the more divine worthy only of the second place, but acting thus for the more manifest demonstration of the power of his dominion. For he foreknew with respect to men who were not yet born, what sort of beings they would be as to their opinions, forming conjectures on what was likely and probable, of which the greater part would be reasonable, though falling short of the character of unadulterated truth; and trusting rather to visible phenomena than to God, and admiring sophistry rather than wisdom. And again he knew that surveying the periods of the sun and moon, to which are owing the summers and winters, and the alternations of spring and autumn, they would conceive the revolutions of the stars in heaven to be the causes of all the things which every year should be produced and generated on the earth, accordingly that no one might venture either through shameless impudence or inordinate ignorance to attribute to any created thing the primary causes of things, he said: (46) “Let them run over in their minds the first creation of the universe, when, before the sun or the moon existed, the earth brought forth all kinds of plants and all kinds of fruits: and seeing this in their minds let them hope that it will again also bring forth such, according to the appointment of the Father, when it shall seem good to him, without his having need of the aid of any of the sons of men beneath the heavens, to whom he has given powers, though not absolute ones.” For as a charioteer holding the reins or a helmsman with his hand upon the rudder, he guides everything as he pleases, in accordance with law and justice, needing no one else as his assistant; for all things are possible to God.

XV. (47) This is the cause why the earth bore fruit and herbs before God proceeded to adorn the heaven. And next the heaven was embellished in the perfect number four, and if any one were to pronounce this number the origin and source of the all-perfect decade he would not err. For what the decade is in actuality, that the number four, as it seems, is in potentiality, at all events if the numerals from the unit to four³ are placed together in order, they will make ten, which is the limit of the number of immensity, around which the numbers wheel and turn as around a goal.

(48) Moreover the number four also comprehends the principles of the harmonious concords in music, that in fours, and in fifths, and the diapason, and besides this the double diapason from which sounds the most perfect system of harmony is produced. For the ratio of the sounds in fourths is as four to three; and in fifths as three to two; and in the diapason that ratio is doubled: and in the double diapason it is increased fourfold, all which ratios the number four comprehends. At all events the first, or the *epistritus*, is the ratio of four to three; the second, or the *hemiolius*, is that of three to two: the twofold ratio is that of two to one, or four to two: and the fourfold ratio is that of four to one.

XVI. (49) There is also another power of the number four which is a most wonderful one to speak of and to contemplate. For it was this number that first displayed the nature of the solid

³By addition, that is $1+2+3+4= 10$.

cube, the numbers before four being assigned only to incorporeal things. For it is according to the unit that that thing is reckoned which is spoken of in geometry as a point: and a line is spoken of according to the number two, because it is arranged by nature from a point; and a line is length without breadth. But when breadth is added to it, it becomes a superficies, which is arranged according to the number three. And a superficies, when compared with the nature of a solid cube, wants one thing, namely depth, and when this one thing is added to the three, it becomes four. On which account it has happened that this number is a thing of great importance, inasmuch as from an incorporeal substance perceptible only by intellect, it has led us on to a comprehension of a body divisible in a threefold manner, and which by its own nature is first perceived by the external senses. (50) And he who does not comprehend what is here said may learn to understand it from a game which is very common. Those who play with nuts are accustomed when they have placed three nuts on the floor, to place one more on the top of them producing a figure like a pyramid. Accordingly the triangle stands on the floor, arranged up to the number three, and the nut which is placed upon it makes up four in number, and in figure it produces a pyramid, being now a solid body.

(51) And in addition to this there is this point also of which we should not be ignorant, the number four is the first number which is a square, being equal on all sides, the measure of justice and equality. And that it is the only number the nature of which is such that it is produced by the same numbers whether in combination, or in power. In combination when two and two are added together; and again in power when we speak of twice two⁴; and in this is displays an exceedingly beautiful kind of harmony, which is not the lot of any other number.

If we examine the number six which is composed of two threes, if these two numbers are multiplied it is not the number six that is produced, but a different one, the number nine. (52) And the number four has many other powers also, which we must subsequently show more accurately in a separate essay appropriated to it. At present it is sufficient to add this that it was the foundation of the creation of the whole heaven and the whole world. For the four elements, out of which this universe was made, flowed from the number four as from a fountain. And in addition to the four elements the seasons of the year are also four, which are the causes of the generation of animals and plants, the year being divided into the quadruple division of winter, and spring, and summer, and autumn.

XVII. (53) The aforesaid number therefore being accounted worthy of such pre-eminence in nature, the Creator of necessity adorned the heaven by the number four, namely by that most beautiful and most godlike ornament the lightgiving stars. And knowing that of all existing things light is the most excellent, he made it the instrument of the best of all the senses, sight. For what the mind is in the soul, that the eye is in the body. For each of them sees, the one beholding those existing things which are perceptible only to the intellect, and the other those which are perceptible to the external senses.

But the mind is in need of knowledge in order to distinguish incorporeal things, and the eyes have need of light in order to be able to perceive bodies, and light is also the cause of many other

⁴Thus $2+2=4$, or $2 \times 2=4$.

good things to men, and particularly of the greatest, namely philosophy. (54) For the sight being sent upwards by light and beholding the nature of the stars and their harmonious movement, and the well-ordered revolutions of the fixed stars, and of the planets, some always revolving in the same manner and coming to the same places, and others having double periods in an anomalous and somewhat contrary manner, beholding also, the harmonious dances of all these bodies arranged according to the laws of perfect music, causes an ineffable joy and delight to the soul. And the soul, feasting on a continuous series of spectacles, for one succeeds another, has an insatiable love for beholding such. Then, as is usually the case, it examines with increased curiosity what is the substance of these things which are visible; and whether they have an existence without having been created, or whether they received their origin by creation, and what is the character of their movement, and what the causes are by which everything is regulated. And it is from inquiries into these things that philosophy has arisen, than which no more perfect good has entered into human life.

XVIII. (55) But the Creator having a regard to that idea of light perceptible only by the intellect, which has been spoken of in the mention made of the incorporeal world, created those stars which are perceptible by the external senses, those divine and superlatively beautiful images, which on many accounts he placed in the purest temple of corporeal substance, namely in heaven. One of the reasons for his so doing was that they might give light; another was that they might be signs; another had reference to their dividing the times of the seasons of the year, and above all dividing days and nights, of months and years, which are the measures of time; and which have given rise to the nature of number. (56) And how great is the use and how great the advantage derivable from each of the aforesaid things, is plain from their effect. But with a view to a more accurate comprehension of them, it may perhaps not be out of place to trace out the truth in a regular discussion.

Now the whole of time being divided into two portions day and night, the sovereignty of the day the Father has assigned to the Sun, as a mighty monarch: and that of the night he has given to the moon and to the multitude of the other stars. (57) And the greatness of the power and sovereignty of the sun has its most conspicuous proof in what has been already said: for he, being one and single has been allotted for his own share and by himself one half portion of all time, namely day; and all the other lights in conjunction with the moon have the other portion, which is called night. And when the sun rises all the appearances of such numbers of stars are not only obscured but absolutely disappear from the effusion of his beams; and when he sets then they all assembled together, begin to display their own peculiar brilliancy and their separate qualities.

XIX. (58) And they have been created, as Moses tells us, not only that they might send light upon the earth, but also that they might display signs of future events. For either by their risings, or their settings, or their eclipses, or again by their appearances and occultations, or by the other variations observable in their motions, men oftentimes conjecture what is about to happen, the productiveness or unproductiveness of the crops, the birth or loss of their cattle, fine weather or cloudy weather, calm and violent storms of wind, floods in the rivers or droughts, a tranquil state of the sea and heavy waves, unusual changes in the seasons of the year when either the summer is cold like winter, or the winter warm, or when the spring assumes the temperature of autumn or

the autumn that of spring. (59) And before now some men have conjecturally predicted disturbances and commotions of the earth from the revolutions of the heavenly bodies, and innumerable other events which have turned out most exactly true: so that it is a most veracious saying that “the stars were created to act as signs, and moreover to mark the seasons.” And by the word seasons the divisions of the year are here intended. And why may not this be reasonably affirmed? For what other idea of opportunity can there be except that it is the time for success? And the seasons bring everything to perfection and set everything right; giving perfection to the sowing and planting of fruits, and to the birth and growth of animals.

(60) They were also created to serve as measure of time; for it is by the appointed periodical revolutions of the sun and moon and other stars, that days and months and years are determined. And moreover it is owing to them that the most useful of all things, the nature of number exists, time having displayed it; for from one day comes the limit, and from two the number two, and from three, three, and from the notion of a month is derived the number thirty, and from a year that number which is equal to the days of the twelve months, and from infinite time comes the notion of infinite number.

(61) To such great and indispensable advantages do the natures of the heavenly bodies and the motions of the stars tend. And to how many other things might I also affirm that they contribute which are as yet unknown to us? for all things are not known to the will of man; but of the things which contribute towards the durability of the universe, those which are established by laws and ordinances which God has appointed to be unalterable for ever, are accomplished in every instance and in every country.

XX. (62) Then when earth and heaven had been adorned with their befitting ornaments, one with a triad, and the other, as has been already said, with a quaternion, God proceeded to create the races of mortal creatures, making the beginning with the aquatic animals on the fifth day, thinking that there was no one thing so akin to another as the number five as to animals; for animate things differ from inanimate in nothing more than in sensation, and sensation is divided according to a fivefold division, into sight, hearing, taste, smell, and touch. Accordingly, the Creator allotted to each of the senses its appropriate matter, and also its peculiar faculty of judgment, by which it should decide on what came before it. So sight judges of colours, and hearing of sounds, and taste of juices, and smell of vapours, and touch of softness and hardness, and of heat and cold, and of smoothness and roughness: (63) therefore He commanded all the races of fish and sea-monsters to stand together in their places, animals differing both in their sizes and in their qualities; for they vary in different seas, though in some cases they are the same, and every animal was not formed to live every where. And was not this reasonable? For some of them delight in marshy places, and in water which is very deep; and some in sewers and harbours, being neither able to crawl up upon the land, nor to swim off far from the land. Some, again, dwell in the middle and in the deep sea, and avoid all the projecting promontories and islands and rocks: some also exult in fine weather and in calm, and some in storms and heavy surf. For being exercised by continual buffetings, and being in the habit of withstanding the current by force, they are very vigorous and become stout.

After that he created the races of birds as akin to the races of aquatic animals (for they are each of them swimmers), leaving no species of creatures which traverse the air unfinished.

XXI. (64) So now when the air and the water had received their appropriate races of animals as an allotment that was their due, God again summoned the earth for the creation of that share which still remained: and after the production of plants, the terrestrial animals still remained. And God said, "Let the earth bring forth cattle and beasts, and creeping things of each kind." And the earth did as it was commanded, and immediately sent forth animals differing in their formation and in their strength, and in the injurious or beneficial powers that were implanted in them.

(65) And after all He made man. But how he made him I will mention presently, after I have first explained that he adopted the most beautiful connection and train of consequences according to the system of the creation of animals which he had sketched out to himself; for of souls the most sluggish and the most weakly formed has been allotted to the race of fishes; and the most exquisitely endowed soul, that which is in all respects most excellent, has been given to the race of mankind, and one something between the two to the races of terrestrial animals and those which traverse the air; for the soul of such creatures is endowed with more acute sensations than the soul of fishes, but is more dull than that of mankind. (66) And it was on this account that of all living creatures God created fishes first, inasmuch as they partake of corporeal substance in a greater degree than they partake of soul, being in a manner animals and not animals, moving soulless things, having a sort of semblance of soul diffused through them for no object beyond that of keeping their bodies live (just as they say that salt preserves meat), in order that they may not easily be destroyed. And after the fishes, he created winged and terrestrial animals: for these are endowed with a higher degree of sensation, and from their formation show that the properties of their animating principle are of a higher order. But after all the rest, then, as has been said before, he created man, to whom he gave that admirable endowment of mind—the soul, if I may so call it, of the soul, as being like the pupil to the eye; for those who most accurately investigate the natures of things affirm, that it is the pupil which is the eye of the eye.

XXII. (67) So at last all things were created and existing together. But when they all were collected in one place, then some sort of order was necessarily laid down for them for the sake of the production of them from one another which was hereafter to take place. Now in things which exist in part, the principle of order is this, to begin with that which is most inferior in its nature, and to end with that which is the most excellent of all; and what that is we will explain. It has been arranged that seed should be the principle of the generation of animals. It is plainly seen that this is a thing of no importance, being like foam; but when it has descended into the womb and remained there, then immediately it receives motion and is changed into nature; and nature is more excellent than seed, as also motion is better than quiet in created things; and nature, like a workman, or, to speak more correctly, like a faultless art, endows the moist substance with life, and fashions it, distributing it among the limbs and parts of the body, allotting that portion which can produce breath, and nourishment, and sensation to the powers of the soul: for as to the reasoning powers, we may pass over them for the present, on account of those who say, that the mind enters into the body from without, being something divine and eternal.

(68) Nature therefore began from an insignificant seed, and ended in the most honourable of things, namely, in the formation of animals and men. And the very same thing took place in the creation of every thing: for when the Creator determined to make animals the first created in his arrangement were in some degree inferior, such as the fishes, and the last were the best, namely, man. And the others the terrestrial and winged creatures were between these extremes, being better than the first created, and inferior to the last.

XXIII. (69) So then after all the other things, as has been said before, Moses says that man was made in the image and likeness of God. And he says well; for nothing that is born on the earth is more resembling God than man. And let no one think that he is able to judge of this likeness from the characters of the body: for neither is God a being with the form of a man, nor is the human body like the form of God; but the resemblance is spoken of with reference to the most important part of the soul, namely, the mind: for the mind which exists in each individual has been created after the likeness of that one mind which is in the universe as its primitive model, being in some sort the God of that body which carries it about and bears its image within it. In the same rank that the great Governor occupies in the universal world, that same as it seems does the mind of man occupy in man; for it is invisible, though it sees everything itself; and it has an essence which is undiscernible, though it can discern the essences of all other things, and making for itself by art and science all sorts of roads leading in divers directions, and all plain; it traverses land and sea, investigating everything which is contained in either element. (70) And again, being raised up on wings, and so surveying and contemplating the air, and all the commotions to which it is subject, it is borne upwards to the higher firmament, and to the revolutions of the heavenly bodies. And also being itself involved in the revolutions of the planets and fixed stars according to the perfect laws of music, and being led on by love, which is the guide of wisdom, it proceeds onwards till, having surmounted all essence intelligible by the external senses, it comes to aspire to such as is perceptible only by the intellect: (71) and perceiving in that, the original models and ideas of those things intelligible by the external senses which it saw here full of surpassing beauty, it becomes seized with a sort of sober intoxication like the zealots engaged in the Corybantian festivals, and yields to enthusiasm, becoming filled with another desire, and a more excellent longing, by which it is conducted onwards to the very summit of such things as are perceptible only to the intellect, till it appears to be reaching the great King himself. And while it is eagerly longing to behold him pure and unmingled, rays of divine light are poured forth upon it like a torrent, so as to bewilder the eyes of its intelligence by their splendour.

But as it is not every image that resembles its archetypal model, since many are unlike, Moses has shown this by adding to the words “after his image,” the expression, “in his likeness,” to prove that it means an accurate impression, having a clear and evident resemblance in form.

XXIV. (72) And he would not err who should raise the question why Moses attributed the creation of man alone not to one creator, as he did that of other animals, but to several. For he introduces the Father of the universe using this language: “Let us make man after our image, and in our likeness.” Had he then, shall I say, need of any one whatever to help him, He to whom all things are subject? Or, when he was making the heaven and the earth and the sea, was he in need

of no one to co-operate with him; and yet was he unable himself by his own power to make man an animal so short-lived and so exposed to the assaults of fate without the assistance of others? It is plain that the real cause of his so acting is known to God alone, but one which to a reasonable conjecture appears probable and credible, I think I should not conceal; and it is this.

(73) Of existing things, there are some which partake neither of virtue nor of vice; as for instance, plants and irrational animals; the one, because they are destitute of soul, and are regulated by a nature void of sense; and the other, because they are not endowed with mind or reason. But mind and reason may be looked upon as the abode of virtue and vice; as it is in them that they seem to dwell. Some things again partake of virtue alone, being without any participation in any kind of vice; as for instance, the stars, for they are said to be animals, and animals endowed with intelligence; or I might rather say, the mind of each of them is wholly and entirely virtuous, and unsusceptible of every kind of evil. Some things again are of a mixed nature, like man, who is capable of opposite qualities, of wisdom and folly, of temperance and dissoluteness, of courage and cowardice, of justice and injustice, in short of good and evil, of what is honourable and what is disgraceful, of virtue and vice. (74) Now it was a very appropriate task for God the Father of all to create by himself alone, those things which were wholly good, on account of their kindred with himself. And it was not inconsistent with his dignity to create those which were indifferent since they too are devoid of evil, which is hateful to him. To create the beings of a mixed nature, was partly consistent and partly inconsistent with his dignity; consistent by reason of the more excellent idea which is mingled in them; inconsistent because of the opposite and worse one.

(75) It is on this account that Moses says, at the creation of man alone that God said, "Let us make man," which expression shows an assumption of other beings to himself as assistants, in order that God, the governor of all things, might have all the blameless intentions and actions of man, when he does right attributed to him; and that his other assistants might bear the imputation of his contrary actions. For it was fitting that the Father should in the eyes of his children be free from all imputation of evil; and vice and energy in accordance with vice are evil.

(76) And very beautifully after he had called the whole race "man," did he distinguish between the sexes, saying, that "they were created male and female;" although all the individuals of the race had not yet assumed their distinctive form; since the extreme species are contained in the genus, and are beheld, as in a mirror, by those who are able to discern acutely.

XXV. (77) And some one may inquire the cause why it was that man was the last work in the creation of the world. For the Creator and Father created him after every thing else as the sacred scriptures inform us. Accordingly, they who have gone most deeply into the laws, and who to the best of their power have investigated everything that is contained in them with all diligence, say that God, when he had given to man to partake of kindred with himself, grudged him neither reason, which is the most excellent of all gifts, nor anything else that is good; but before his creation, provided for him every thing in the world, as for the animal most resembling himself, and dearest to him, being desirous that when he was born, he should be in want of nothing requisite for living, and for living well; the first of which objects is provided for by the abundance of supplies which are furnished to him for his enjoyment, and the other by his power of

contemplation of the heavenly bodies, by which the mind is smitten so as to conceive a love and desire for knowledge on those subjects; owing to which desire, philosophy has sprung up, by which, man, though mortal, is made immortal. (78) As then, those who make a feast do not invite their guests to the entertainment before they have provided everything for festivity, and as those who celebrate gymnastic or dramatic contests, before they assemble the spectators, provide themselves with an abundance of competitors and spectacles, and sweet sounds, with which to fill the theatres and the stadia; so in the same manner did the Ruler of all, as a man proposing games, or giving a banquet and being about to invite others to feast and to behold the spectacle, first provide everything for every kind of entertainment, in order that when man came into the world he might at once find a feast ready for him, and a most holy theatre; the one abounding with everything which the earth, or the rivers, or the sea, or air, brings forth for use and enjoyment, and the other being full of every description of light, which has either its essence or its qualities admirable, and its motions and revolutions worthy of notice, being arranged in perfect order, both as to the proportions of its numbers, and the harmony of its periods. And a man would not be far wrong who should say that in all these things there might be discovered that archetypal and real model music, the images of which the subsequent generations of mankind engraved in their own souls, and in this way handed down the art which is the most necessary and the most advantageous to human life.

XXVI. (79) This is the first reason on account of which it seems that man was created after all other animals. And there is another not altogether unreasonable, which I must mention. At the moment of his first birth, man found all the requisites for life ready prepared for him that he might teach them to those who should come afterwards. Nature all but crying out with a distinct voice, that men, imitating the Author of their being, should pass their lives without labour and without trouble, living in the most ungrudging abundance and plenty. And this would be the case if there were neither irrational pleasures to obtain mastery over the soul raising up a wall of gluttony and lasciviousness, nor desires of glory, or power, or riches, to assume dominion over life, nor pains to contract and warp the intellect, nor that evil councillor—fear, to restrain the natural inclinations towards virtuous actions, nor folly and cowardice, and injustice, and the incalculable multitude of other evils to attack them. (80) But now that all the evils which I have now been mentioning are vigorous, and that men abandon themselves without restraint to their passions, and to those unbridled and guilty inclinations, which it is impious even to mention, justice encounters them as a suitable chastiser of wicked habits; and therefore, as a punishment for wrong doers, the necessaries of life have been made difficult of acquisition. For men ploughing up the plains with difficulty, and bringing streams from rivers, and fountains by channels, and sowing and planting, and submitting indefatigably day and night to the labour of cultivating the ground, provide themselves every year with what is necessary, even that at times being attended with pain; and not very sufficient in quantity, from being injured by many causes. For either a fall of incessant rain has carried away the crops, or the weight of hail which has fallen upon them has crushed them altogether, or snow has chilled them, or the violence of the winds has torn them up by the roots; for water and air cause many alterations, tending to destroy and productiveness of the crops. (81) But if the immoderate violence of the passions were appeased by temperance, and the inclination to do wrong and depraved ambition were corrected by justice, and in short if the vices and unhallowed actions done in accordance with them, were

corrected by the virtues, and the energies in accordance with them, the war of the soul being terminated, which is in good truth the most grievous and heavy of all wars, and peace being established, and founding amid all our faculties, a due regard for law, with all tranquillity and mildness, then there would be hope that God, as being a friend to virtue, and a friend to honour, and above all a friend to man, would bestow upon the race of man, all kinds of spontaneous blessings from his ready store. For it is evident that it is easier to supply most abundantly the requisite supplies without having recourse to agricultural means, from treasures which already exist, than to bring forth what as yet has no existence.

XXVII. (82) I have now mentioned the second reason. There is also a third, which is as follows:—God, intending to adapt the beginning and the end of all created things together, as being all necessary and dear to one another, made heaven the beginning, and man the end: the one being the most perfect of incorruptible things, among those things which are perceptible by the external senses; and the other, the best of all earthborn and perishable productions—a short-lived heaven if one were to speak the truth, bearing within himself many starlike natures, by means of certain arts and sciences, and illustrious speculations, according to every kind of virtue. For since the corruptible and the incorruptible, are by nature opposite, he has allotted the best thing of each species to the beginning and to the end. Heaven, as I before said, to the beginning, and man to the end.

XXVIII. (83) And besides all this, another is also mentioned among the necessary causes. It was necessary that man should be the last of all created beings; in order that being so, and appearing suddenly, he might strike terror into the other animals. For it was fitting that they, as soon as they first saw him should admire and worship him, as their natural ruler and master; on which account, they all, as soon as they saw him, became tame before him; even those, who by nature were most savage, becoming at once most manageable at the first sight of him; displaying their unbridled ferocity to one another, and being tame to man alone. (84) For which reason the Father who made him to be a being dominant over them by nature not merely in fact, but also by express verbal appointment, established him as the king of all the animals, beneath the moon, whether terrestrial or aquatic, or such as traverse the air. For every mortal thing which lives in the three elements, land, water or air, did he put in subjection to him, excepting only the beings that are in heaven, as creatures who have a more divine portion. And what is apparent to our eyes is the most evident proof of this. For at times, innumerable herds of beasts are led about by one man, not armed, nor wearing iron, nor any defensive weapon, but clad only in a skin for a garment, and carrying a staff, for the purpose of making signs, and to lean upon also in his journeys if he become weary. (85) And so the shepherd, and the goatherd, and the cowherd, lead numerous flocks of sheep, and goats, and herds of oxen; men neither vigorous, nor active in their bodies, so as to strike those who behold them with admiration because of their fine appearance; and all the might and power of such numerous and well-armed beasts (for they have means of self-defence given them by nature), yet dread them as slaves do their master, and do all that is commanded them. Bulls are yoked to the plough to till the ground, and cutting deep furrows all day, sometimes even for a long space of time together, while some farmer is managing them. And rams being weighed down with heavy fleeces of wool, in the spring season, at the command of the shepherd, stand quietly, and lying down, without resistance, permit their wool to be shorn

off, being accustomed naturally, like cities, to yield a yearly tribute to their sovereign. (86) And moreover, that most spirited of animals, the horse, is easily guided after he has been bridled; in order that he may not become frisky, and shake off the rein; and he hollows his back in an admirable manner to receive his rider and to afford him a good seat, and then bearing him aloft, he gallops at a rapid pace, being eager to arrive at and carry him to the place to which he is urging him. And the rider without any toil, but in the most perfect quiet, makes a rapid journey, by using the body and feet of another animal.

XXIX. (87) And any one who was inclined to dwell upon this subject might bring forward a great many other instances, to prove that there is no animal in the enjoyment of perfect liberty, and exempt from the dominion of man; but what has been already said is sufficient by way of example. We ought, however, not to be ignorant of this also, that it is no proof because man was the last created animal that he is the lowest in rank, and charioteers and pilots are witnesses of this; (88) for the charioteers sit behind their beasts of burden, and are placed at, their backs, and yet when they have the reins in their hands, they guide them wherever they choose, and at one time they urge them on to a swift pace, and at another time they hold them back, if they are going on at a speed greater than is desirable. And pilots again, sitting in the hindmost part of the ship, that is the stern are, as one may say, the most important of all the people in the ship, inasmuch as they have the safety of the ship and of all those who are in it, in their hands. And so the Creator has made man to be as it were a charioteer and pilot over all other animals, in order that he may hold the reins and direct the course of every thing upon earth, having the superintendence of all animals and plants, as a sort of viceroy of the principal and mighty King.

XXX. (89) But after the whole world had been completed according to the perfect nature of the number six, the Father hallowed the day following, the seventh, praising it, and calling it holy. For that day is the festival, not of one city or one country, but of all the earth; a day which alone it is right to call the day of festival for all people, and the birthday of the world. (90) And I know not if any one would be able to celebrate the nature of the number seven in adequate terms, since it is superior to every form of expression. But it does not follow that because it is more admirable than anything that can be said of it, that on that account one ought to keep silence; but rather we ought to try, even if one cannot say everything which is proper, or even that which is most proper, at all events to utter such things as may be attainable by our capacities.

(91) The number seven is spoken of in two ways; the one within the number ten which is measured by repeating the unit alone seven times, and which consists of seven units; the other is the number outside ten, the beginning of which is altogether the unit increasing according to a twofold or threefold, or any other proportion whatever; as are the numbers sixty-four, and seven hundred and twenty-nine; the one number of which is increased by doubling on from the unit, and the other by trebling. And it is not well to examine either species superficially, but the second has a most manifest pre-eminence. (92) For in every case the number which is combined from the unit in double or treble ratio, or any other ratio, whatsoever, is the seventh number, a cube and a square, embracing both species, both that of the incorporeal and that of the corporeal essence. That of the incorporeal essence according to the superficies which quadrangular figures present, and that of the corporeal essence according to the other figure which cubes make; (93)

and the clearest proof of this is afforded by the numbers already spoken of. In the seventh number increasing immediately from the unit in a twofold ratio, namely, the number sixty-four, is a square formed by the multiplication of eight by eight, and it is also a cube by the multiplication of four and four, four times. And again, the seventh number from the unit being increased in a threefold ratio, that is to say, the number seven hundred and twenty-nine, is a square, the number seven and twenty being multiplied by itself; and it is also a cube, by nine being multiplied by itself nine times. (94) And in every case a man making his beginning from the unit, and proceeding on to the seventh number, and increasing in the same ratio till he comes to the number seven, will at all times find the number, when increased, both a cube and a square. At all events, he who begins with the number sixty-four, and combines them in a doubling ratio, will make the seventh number four thousand and ninety-six, which is both a square and a cube, having sixty-four as its square root, and sixteen as its cube root.

XXXI. (95) And we must also pass on to the other species of the number seven, which is contained in the number ten, and which displays an admirable nature, and one not inferior to the previously mentioned species. The number seven consists of one, and two and four, numbers which have two most harmonious ratios, the twofold and the fourfold ratio; the former of which affects the diapason harmony, while the fourfold ratio causes that of the double diapason. It also comprehends other divisions, existing in some kind of yoke-like combination. For it is divided first of all into the number one, and the number six; then into the two and the five; and last of all, into the three and the four. (96) And the proportion of these numbers is a most musical one; for the number six bears to the number one a six-fold ratio, and the six-fold ratio causes the greatest possible difference between existing tones; the distance namely, by which the sharpest tone is separated from the flattest, as we shall show when we pass on from numbers to the discussion of harmony. Again, the ratio of four to two displays the greatest power in harmony, almost equal to that of the diapason, as is most evidently shown in the rules of that art. And the ratio of four to three effects the first harmony, that in the thirds, which is the diatessaron.

XXXII. (97) The number seven displays also another beauty which it possesses, and one which is most sacred to think of. For as it consists of three and four, it displays in existing things a line which is free from all deviation and upright by nature. And in what way it does so I must show.

The rectangular triangle, which is the beginning of all qualities, consists of the numbers⁵ and four, and five; and the three and the four, which are the essence of the seven, contain the right angle; for the obtuse angle and the acute angle show irregularity, and disorder, and inequality; for one may be more acute or more obtuse than another. But a right angle does not admit of comparison, nor is one right angle more a right angle than another: but one remains similar to another, never changing its peculiar nature. But if the right-angled triangle is the beginning of all figures and of all qualities, and if the essence of the number seven, that is to say, the numbers three and four together, supply the most necessary part of this, namely, the right angle, then seven may be rightly thought to be the fountain of every figure and of every quality. (98) And

⁵This discussion about numbers is not very intelligible; but here Philo is probably referring to the problem of Euclid on the subject of the square of the hypotenuse. Thus, if 3 and 4 represent the sides containing the angle, and 5 the side subtending it, we get $(3 \times 3) + (4 \times 4) = 9 + 16 = 25$; $5 \times 5 = 25$.

besides what has been already advanced, this also may be asserted that three is the number of a plane figure, since a point has been laid down to be, according to a unit, and a line according to the number two, and a plane superficies according to the number three. Also, four is the number of a cube, by the addition of one to the number of a plane superficies, depth being added to the superficies. From which it is plain that the essence of the number seven is the foundation of geometry and trigonometry; and in a word, of all incorporeal and corporeal substances.

XXXIII. (99) And such great sanctity is there in the number seven, that it has a pre-eminent rank beyond all the other numbers in the first decade. For of the other numbers, some produce without being produced, others are produced but have no productive power themselves; others again both produce and are produced. But the number seven alone is contemplated in no part. And this proposition we must confirm by demonstration. Now the number one produces all the other numbers in order, being itself produced absolutely by no other; and the number eight is produced by twice four, but itself produces no other number in the decade. Again, four has the rank of both, that is, of parents and of offspring; for it produces eight when doubled, and it is produced by twice two. (100) But seven alone, as I said before, neither produces nor is produced, on which account other philosophers liken this number to Victory, who had no mother, and to the virgin goddess, whom the fable asserts to have sprung from the head of Jupiter: and the Pythagoreans compare it to the Ruler of all things. For that which neither produces, nor is produced, remains immovable. For generation consists in motion, since that which is generated, cannot be so without motion, both to cause production, and to be produced. And the only thing which neither moves nor is moved, is the Elder, Ruler, and Lord of the universe, of whom the number seven may reasonably be called a likeness. And Philolaus gives his testimony to this doctrine of mine in the following Words: “for God,” says he “is the ruler and Lord of all things, being one, eternal, lasting, immovable, himself like to himself, and different from all other beings.”

XXXIV. (101) Among the things then which are perceptible only by intellect, the number seven is proved to be the only thing free from motion and accident; but among things perceptible by the external senses, it displays a great and comprehensive power, contributing to the improvement of all terrestrial things, and affecting even the periodical changes of the moon. And in what manner it does this, we must consider. The number seven when compounded of numbers beginning with the unit, makes eight-and-twenty, a perfect number, and one equalised in its parts. And the number so produced, is calculated to reproduce the revolutions of the moon, bringing her back to the point from which she first began to increase in a manner perceptible by the external senses, and to which she returns by waning. For she increases from her first crescent-shaped figure, to that of a half circle in seven days; and in seven more, she becomes a full orb; and then again she turns back, retracing the same path, like a runner of the *diaulos*,⁶ receding from an orb full of light, to a half circle again in seven days, and lastly, in an equal number she diminishes from a half circle to the form of a crescent; and thus the number before mentioned is completed. (102) And the number seven by those persons who are in the habit of employing names with strict propriety is called the perfecting number; because by it, everything

⁶This refers to the Greek games. “The straight race was called *stadion* or *dromos*. In the *diaulos dromos* the runners turned round the goal, and came back to the starting place.” —Smith in v. Stadium.

is perfected. And any one may receive a confirmation of this from the fact, that every organic body has three dimensions, length, depth, and breadth; and four boundaries, the point, the line, the superficies, and the solid; and by theses, when combined, the number seven is made up.

But it would be impossible for bodies to be measured by the number seven, according to the combination of the three dimensions, and the four boundaries, if it did not happen that the ideas of the first numbers, one, two, three and four, in which the number ten is founded, comprised the nature of the number seven. For the aforesaid numbers have four boundaries, the first, the second, the third, the fourth, and three intervals. The first interval being that between one and two; the second, that between two and three; the third, that between three and four.

XXXV. (103) And besides what has been already said, the growth of men from infancy to old age, when measured by the number seven, displays in a most evident manner its perfecting power; for in the first period of seven years, the putting forth of the teeth takes place. And at the end of the second period of the same length, he arrives at the age of puberty: at the end of the third period, the growth of the beard takes place. The fourth period sees him arrive at the fullness of his manly strength. The fifth seven years is the season for marriage. In the sixth period he arrives at the maturity of his understanding. The seventh period is that of the most rapid improvement and growth of both his intellectual and reasoning powers. The eighth is the sum of the perfection of both. In the ninth, his passions assume a mildness and gentleness, from being to a great degree tamed. In the tenth, the desirable end of life comes upon him, while his limbs and organic senses are still unimpaired: for excessive old age is apt to weaken and enfeeble them all.

(104) And Solon, the Athenian lawgiver, described these different ages in the following elegiac verses:

In seven years from th' earliest breath,
The child puts forth his hedge of teeth;
When strengthened by a similar span,
He first displays some signs of man.
As in a third, his limbs increase,
A beard buds o'er his changing face.
When he has passed a fourth such time,
His strength and vigour's in its prime.
When five times seven years o'er his head
Have passed, the man should think to wed;
At forty two, the wisdom's clear
To shun vile deed of folly or fear:
While seven times seven years to sense
Add ready wit and eloquence.
And seven years further skill admit
To raise them to their perfect height.
When nine such periods have passed,

His powers, though milder grown, still last;
When God has granted ten times seven,
The aged man prepares for heaven.

XXXVI. (105) Solon therefore thus computes the life of man by the aforesaid ten periods of seven years. But Hippocrates the physician says that there are seven⁷ ages of man, infancy, childhood, boyhood, youth, manhood, middle age, old age; and that these too, are measured by periods of seven, though not in the same order. And he speaks thus; "In the nature of man there are seven seasons, which men call ages; infancy, childhood, boyhood, and the rest. He is an infant till he reaches his seventh year, the age of the shedding of his teeth. He is a child till he arrives at the age of puberty, which takes place in fourteen years. He is a boy till his beard begins to grow, and that time is the end of a third period of seven years. He is a youth till the completion of the growth of his whole body, which coincides with the fourth seven years. Then he is a man till he reaches his forty-ninth year, or seven times seven periods. He is a middle aged man till he is fifty-six, or eight times seven years old; and after that he is an old man."

(106) And it is also affirmed for the particular praise of the number seven, that it has a very admirable rank in nature, because it is composed of three and four. And if any one doubles the third number after the unit, he will find a square; and if he doubles the fourth number, he will find a cube. And if he doubles the seventh from both, he will both a cube and a square; therefore, the third number from the unit is a square in a double ratio. And the fourth number, eight, is a cube. And the seventh number, being sixty-four, is both a cube and a square at the same time; so that the seventh number is really a perfecting one, signifying both equalities, the plane superficies by the square, according to the connection with the number three, and the solid by the cube according to its relationship to the number four; and of the numbers three and four, are composed the number seven.

XXXVII. (107) But this number is not only a perfecter of things, but it is also, so to say, the most harmonious of numbers; and in a manner the source of that most beautiful diagram which describes all the harmonies, that of fourths, and that of fifths, and the diapason. It also comprises all the proportions, the arithmetical, the geometrical, and moreover the harmonic proportion. And the square consists of these numbers, six, eight, nine, and twelve; and eight bears to six the ratio of being one third greater, which is the diatessaron of harmony. And nine bears to six the ratio of being half as great again, which is the ratio of fifths. And twelve is to six, in a twofold proportion; and this is the same as the diapason. (108) The number seven comprises also, as I have said, all the proportions of arithmetical proportion, from the numbers six, and nine, and twelve; for as the number in the middle exceeds the first number by three, it is also exceeded by three by the last number. And geometrical proportion is according to these four numbers. For the same ratio that eight bears to six, that also does twelve bear to nine. And this is the ratio of thirds. Harmonic ratio consists of three numbers, six, and eight, and twelve. (109) But there are two ways of judging of harmonic proportion. One when, whatever ratio the last number bears to the first, the excess by which the last number exceeds the middle one is the same as the excess by

⁷It is hardly necessary to remind the reader of the description of the seven ages of man in Shakespeare. *As You Like It*, Act II. scene 7.

which the middle number exceeds the first. And any one may derive a most evident proof of this from the numbers before mentioned, six, and eight, and twelve: for the last number is double the first. And again, the excess of twelve over eight is double the excess of eight over six. For the number twelve exceeds eight by four, and eight exceeds six by two; and four is the double of two. (110) And another test of harmonic proportion is, when the middle term exceeds and is exceeded by those on each side of it, by an equal portion; for eight being the middle term, exceeds the first term by a third part; for if six be subtracted from it, the remainder two is one third of the original number six: and it is exceeded by the last term in an equal proportion; for if eight be taken from twelve, the remainder four is one third of the whole number twelve.

XXXVIII. (111) Let this then be premised, as of necessity it must, respecting the honourable qualities which this diagram or square has, and the name to which it is entitled, and the number seven unfolds an equal number of ideas, and even more in the case of incorporeal things, which are perceptible only by the intellect; and its nature extends also over every visible essence, reaching to both heaven and earth, which are the boundaries of every thing. For what portion of all the things on earth is there which is not fond of seven; being subdued by an affection and longing for the seventh. (112) Accordingly men say, that the heaven is girdled with seven circles, the names of which are as follows; the arctic, the antarctic, the summer tropic, the winter tropic, the equinoctial, the zodiac, and last of all the galaxy. For the horizon is something which affects ourselves, in proportion as any one has acute vision, or the contrary; our sensation cutting off at one time a lesser, and at another time a greater circumference. (113) The planets too, and the corresponding host of fixed stars, are arrayed in seven divisions, displaying a very great sympathy with the air and the earth. For they turn the air towards the times, that are called the seasons of the year, causing in each of them innumerable changes by calm weather, and pleasant breezes, and clouds, and irresistible blasts of wind. And again, they make rivers to overflow and to subside, and turn plains into lakes; and again, on the contrary, they dry up the waters: they also cause the alterations of the seas, when they receded, and return with a reflux. For at times, when the tide recedes on a sudden, an extensive line of shore occupies what is usually a wide gulf of sea; and in a short time afterwards, the waters are brought back, and there appears a sea, sailed over, not by shallow boats, but by ships of exceeding great burden. And they also give increase and perfection to all the terrestrial animals and plants which produce fruit, endowing each with a nature to last a long time, so that new plants may flourish and come to maturity; the old ones having passed away, in order to provide an abundant supply of necessary things.

XXXIX. (114) Moreover, the constellation Ursa Major, which men call the guide of mariners, consists of seven stars, which the pilots keeping in view, steer in innumerable paths across the sea, directing their endeavours towards an incredible task, beyond the capacity of human intellect. For it is through conjectures, directed by the aforementioned stars, that they have discovered countries which were previously unknown; those who dwell on the continent having discovered islands, and islanders having found out continents. For it was fitting that the recesses both of earth and sea should be revealed to that God-loving animal, the race of mankind, by the purest of essences, namely heaven.

(115) And besides the stars above mentioned the band of the Pleiades is also made up of seven stars, the rising and occultation of which are the causes of great benefits to all men. For when they set, the furrows are ploughed up for the purpose of sowing; and when they are about to rise, they bring glad tidings of harvest; and after they have arisen, they awaken the rejoicing husbandman to the collection of their necessary food. And they with joy store up their food for their daily use. (116) And the sun, the ruler of the day, making two equinoxes every year, both in spring and autumn. The spring equinox in the constellation of Aries, and the autumnal one in Libra, gives the most evident demonstration possible of the divine dignity of the number seven. For each of the equinoxes takes place in the seventh month, at which time men are expressly commanded by law to celebrate the greatest and most popular and comprehensive festivals; since it is owing to both these seasons, that all the fruits of the earth are engendered and brought to perfection; the fruit of corn, and all other things which are sown, being owing to the vernal equinox; and that of the vine, and of all the other plants which bear hard berries, of which there are great numbers, to the autumnal one.

XL. (117) And since all the things on the earth depend upon the heavenly bodies according to a certain natural sympathy, it is in heaven too that the ratio of the number seven began, and from thence it descended to us also, coming down to visit the race of mortal men. And so again, besides the dominant part of our mind, our soul is divided into seven divisions; there being five senses, and besides them the vocal organ, and after that the generative power. All which things, like the puppets in a raree show, which are moved by strings by the manager, are at one time quiet, and at another time in motion, each according to its suitable habits and capacities of motion.

(118) And in the same way, if any one were to set about investigating the different parts of the body, in both their interior and the exterior arrangement, he will in each case find seven divisions. Those which are visible are as follows: the head, the chest, the belly, two arms, and two legs; the internal parts, or the entrails, as they are called, are the stomach, the heart, the lungs, the spleen, the liver, and the two kidneys. (119) Again, the principal and dominant part in an animal is the head, and that has seven most necessary divisions: two eyes, an equal number of ears, two channels for the nostrils, and the mouth to make up seven, through which as Plato says, mortal things find their entrance, and immortal things their exit. For into the mouth do enter meat and drink, perishable food of a perishable body; but from out of it proceed words—the immortal laws of an immortal soul, by means of which rational life is regulated.

XLI. (120) Again, the things which are judged of by the best of the senses, sight, partake of number according to their kind. For the things which are seen are seven; body, distance, shape, magnitude, colour, motion, tranquillity, and besides these there is nothing. (121) It also happens that all the changes of the voice amount to seven; the acute, the grave, the contracted, in the fourth place the aspirated sound, the fifth is the tone, the sixth the long, the seventh the short sound.

(122) There are also seven motions; the motion upwards, the motion downwards, that to the right, that to the left, the forward motion, the backward motion, and the rotatory motion, as is

most especially shown by those who exhibit dances. (123) It is affirmed also that the secretions of the body are performed in the aforesaid number of seven. For tears are poured out through the eyes, and the purifications of the head through the nostrils, and through the mouth the saliva which is spit out; there are, besides two other channels for the evacuation of the superfluities of the body, the one being placed in front and the other behind; the sixth mode of evacuation is the effusion of perspiration over the whole body, and the seventh that most natural exercise of the generative powers. (124) Again, in the case of women, the flux called the *catamenia*, is usually carried on for seven days. Also, children in the womb receive life at the end of seven months, so that a very extraordinary thing happens: for children who are born at the end of the seventh month live, while those who are born at the expiration of the eighth month are altogether incapable of surviving.

(125) Again, the dangerous diseases of the body, especially when lasting fevers, arising from the distemperature of the powers within us, attack us, are usually decided about the seventh day. For that day determines the contest for life, allotting safety to some men, and death to others.

XLII. (126) And the power of this number does not exist only in the instances already mentioned, but it also pervades the most excellent of the sciences, the knowledge of grammar and music. For the lyre with seven strings, bearing a proportion to the assemblage of the seven planets, perfects its admirable harmonies, being almost the chief of all instruments which are conversant about music. And of the elements of grammar, those which are properly called vowels are, correctly speaking, seven in number, since they can be sounded by themselves, and when they are combined with other letters, they make complete sounds; for they fill up the deficiency existing in semi-vowels, making the sounds whole; and they change and alter the natures of the mutes inspiring them with their own power, in order that what has no sound may become endowed with sound. (127) On which account it appears to me that they also originally gave letters their names, and acting as became wise men, did give the name to the number seven from the respect^s they had for it, and from regard to the dignity inherent in it. But the Romans, adding the letter S, which had been omitted by the Greeks, show still more conspicuously the correct etymological meaning of the word, calling it *septem*, as derived from *semnos*, venerable, as has been said before, and from *sebasmos*, veneration.

XLIII. (128) These things, and more still are said in a philosophical spirit about the number seven, on account of which it has received the highest honours, in the highest nature. And it is honoured by those of the highest reputation among both Greeks and barbarians, who devote themselves to mathematical sciences. It was also greatly honoured by Moses, a man much attached to excellence of all sorts, who described its beauty on the most holy pillars of the law, and wrote it in the hearts of all those who were subject to him, commanding them at the end of each period of six days to keep the seventh holy; abstaining from all other works which are done in the seeking after and providing the means of life, devoting that day to the single object of philosophizing with a view to the improvement of their morals, and the examination of their consciences: for conscience being seated in the soul as a judge, is not afraid to reprove men,

^sThe word used is *sebasmos*, as if *hebdomas* were derived from that; and the Romans formed *septem* from *hepta*, by the addition of s.

sometimes employing pretty vehement threats; at other times by milder admonitions, using threats in regard to matters where men appear to be disobedient, of deliberate purpose, and admonitions when their offences seem involuntary, through want of foresight, in order to prevent their hereafter offending in a similar manner.

XLIV. (129) So Moses, summing up his account of the creation of the world, says in a brief style, "This is the book of the creation of the heaven and of the earth, when it took place, in the day on which God made the heaven and the earth, and every green herb before it appeared upon the earth, and all the grass of the field before it sprang up." Does he not here manifestly set before us incorporeal ideas perceptible only by the intellect, which have been appointed to be as seals of the perfected works, perceptible by the outward senses. For before the earth was green, he says that this same thing, verdure, existed in the nature of things, and before the grass sprang up in the field, there was grass though it was not visible. (130) And we must understand in the case of every thing else which is decided on by the external senses, there were elder forms and motions previously existing, according to which the things which were created were fashioned and measured out. For although Moses did not describe everything collectively, but only a part of what existed, as he was desirous of brevity, beyond all men that ever wrote, still the few things which he has mentioned are examples of the nature of all, for nature perfects none of those which are perceptible to the outward senses without an incorporeal model.

XLV. (131) Then, preserving the natural order of things, and having a regard to the connection between what comes afterwards and what has gone before, he says next, "And a fountain went up from the earth and watered the whole face of the earth." For other philosophers affirm that all water is one of the four elements of which the world was composed. But Moses, who was accustomed to contemplate and comprehend matters with a more acute and far-sighted vision, considers thus: the vast sea is an element, being a fourth part of the entire universe, which the men after him denominated the ocean, while they look upon the smaller seas which we sail over in the light of harbours. And he drew a distinction between the sweet and drinkable water and that of the sea, attributing the former to the earth, and considering it a portion of the earth, rather than of the ocean, on account of the reason which I have already mentioned, that is to say, that the earth may be held together by the sweet qualities of the water as by a chain; the water acting in the manner of glue. For if the earth were left entirely dry, so that no moisture arose and penetrated through its holes rising to the surface in various directions, it would split. But now it is held together, and remains lasting, partly by the force of the wind which unites it, and partly because the moisture does not allow it to become dry, and so to be broken up into larger and smaller fragments.

(132) This is one reason; and we must also mention another, which is aimed at the truth like an arrow at a mark. It is not the nature of anything upon the earth to exist without a moist essence. And this is indicated by the throwing of seed, which is either moist, as the seed of animals, or else does not shoot up without moisture, such as the seeds of plants; from which it is evident that it follows that the aforesaid moist essence must be a portion of the earth which produces everything, just as the flux of the *catamenia* is a part of women. For by men who are learned in natural philosophy, this also is said to be the corporeal essence of children. (133) Nor is what we

are about to say inconsistent with what has been said; for nature has bestowed upon every mother, as a most indispensable part of her conformation, breasts gushing forth like fountains, having in this manner provided abundant food for the child that is to be born. And the earth also, as it seems, is a mother, from which consideration it occurred to the early ages to call her Demetra, combining the names of mother (*mêter*), and earth (*gê* or *dê*). For it is not the earth which imitates the woman, as Plato has said, but the woman who has imitated the earth which the race of poets has been accustomed with truth to call the mother of all things, and the fruit-bearer, and the giver of all things, since she is at the same time the cause of the generation and durability of all things, to the animals and plants. Rightly, therefore, did nature bestow on the earth as the eldest and most fertile of mothers, streams of rivers, and fountains like breasts, in order that the plants might be watered, and that all living things might have abundant supplies of drink.

XLVI. (134) After this, Moses says that “God made man, having taken clay from the earth, and he breathed into his face the breath of life.” And by this expression he shows most clearly that there is a vast difference between man as generated now, and the first man who was made according to the image of God. For man as formed now is perceptible to the external senses, partaking of qualities, consisting of body and soul, man or woman, by nature mortal. But man, made according to the image of God, was an idea, or a genus, or a seal, perceptible only by the intellect, incorporeal, neither male nor female, imperishable by nature. (135) But he asserts that the formation of the individual man, perceptible by the external senses is a composition of earthy substance, and divine spirit. For that the body was created by the Creator taking a lump of clay, and fashioning the human form out of it; but that the soul proceeds from no created thing at all, but from the Father and Ruler of all things. For when he uses the expression, “he breathed into,” etc., he means nothing else than the divine spirit proceeding from that happy and blessed nature, sent to take up its habitation here on earth, for the advantage of our race, in order that, even if man is mortal according to that portion of him which is visible, he may at all events be immortal according to that portion which is invisible; and for this reason, one may properly say that man is on the boundaries of a better and an immortal nature, partaking of each as far as it is necessary for him; and that he was born at the same time, both mortal and the immortal. Mortal as to his body, but immortal as to his intellect.

XLVII. (136) But the original man, he who was created out of the clay, the primeval founder of all our race, appears to me to have been most excellent in both particulars, in both soul and body, and to have been very far superior to all the men of subsequent ages from his pre-eminent excellence in both parts. For he in truth was really good and perfect. And one may form a conjecture of the perfection of his bodily beauty from three considerations, the first of which is this: when the earth was now but lately formed by its separation from that abundant quantity of water which was called the sea, it happened that the materials out of which the things just created were formed were unmixed, uncorrupted, and pure; and the things made from this material were naturally free from all imperfection. (137) The second consideration is that it is not likely that God made this figure in the present form of a man, working with the most sublime care, after he had taken the clay from any chance portion of earth, but that he selected carefully the most excellent clay of all the earth, of the pure material choosing the finest and most carefully

sifted portion, such as was especially fit for the formation of the work which he had in hand. For it was an abode or sacred temple for a reasonable soul which was being made, the image of which he was about to carry in his heart, being the most God-like looking of images. (138) The third consideration is one which admits of no comparison with those which have been already mentioned, namely, this: the Creator was good both in other respects, and also in knowledge, so that every one of the parts of the body had separately the numbers which were suited to it, and was also accurately completed in the admirable adaptation to the share in the universe of which it was to partake. And after he had endowed it with fair proportions, he clothed it with beauty of flesh, and embellished it with an exquisite complexion, wishing, as far as was possible, that man should appear the most beautiful of beings.

XLVIII. (139) And that he is superior to all these animals in regard of his soul, is plain. For God does not seem to have availed himself of any other animal existing in creation as his model in the formation of man; but to have been guided, as I have said before, by his own reason alone. On which account, Moses affirms that this man was an image and imitation of God, being breathed into in his face in which is the place of the sensations, by which the Creator endowed the body with a soul. Then, having placed the mind in the dominant part as king, he gave him as a body of satellites, the different powers calculated to perceive colours and sounds, and flavours and odours, and other things of similar kinds, which man could never have distinguished by his own resources without the sensations. And it follows of necessity that an imitation of a perfectly beautiful model must itself be perfectly beautiful, for the word of God surpasses even that beauty which exists in the nature which is perceptible only by the external senses, not being embellished by any adventitious beauty, but being itself, if one must speak the truth, its most exquisite embellishment.

XLIX. (140) The first man, therefore, appears to me to have been such both in his body and in his soul, being very far superior to all those who live in the present day, and to all those who have gone before us. For our generation has been from men: but he was created by God. And in the same proportion as the one Author of being is superior to the other, so too is the being that is produced. For as that which is in its prime is superior to that the beauty of which is gone by, whether it be an animal, or a plant, or fruit, or anything else whatever of the productions of nature; so also the first man who was ever formed appears to have been the height of perfection of our entire race, and subsequent generations appear never to have reached an equal state of perfection, but to have at all times been inferior both in their appearance and in their power, and to have been constantly degenerating, (141) which same thing I have also seen to be the case in the instance of the sculptors' and painters' art. For the imitations always fall short of the original models. And those works which are painted or fashioned from models must be much more inferior, as being still further removed from the original. And the stone which is called the magnet is subject to a similar deterioration. For any iron ring which touches it is held by it as firmly as possible, but another which only touches that ring is held less firmly. And the third ring hangs from the second, and the fourth from the third, and the fifth from the fourth, and so on one from another in a long chain, being all held together by one attractive power, but still they are not all supported in the same degree. For those which are suspended at a distance from the

original attraction, are held more loosely, because the attractive power is weakened, and is no longer able to bind them in an equal degree.

And the race of mankind appears to be subject to an influence of the same kind, since in men the faculties and distinctive qualities of both body and soul are less vivid and strongly marked in each succeeding generation. (142) And we shall be only saying what is the plain truth, if we call the original founder of our race not only the first man, but also the first citizen of the world. For the world was his house and his city, while he had as yet no structure made by hands and wrought out of the materials of wood and stone. And in this world he lived as in his own country, in all safety, removed from any fear, inasmuch as he had been thought worthy of the dominion over all earthly things; and had everything that was mortal crouching before him, and taught to obey him as their master, or else constrained to do so by superior force, and living himself surrounded by all the joys which peace can bestow without a struggle and without reproach.

L. (143) But since every city in which laws are properly established, has a regular constitution, it became necessary for this citizen of the world to adopt the same constitution as that which prevailed in the universal world. And this constitution is the right reason of nature, which in more appropriate language is denominated law, being a divine arrangement in accordance with which everything suitable and appropriate is assigned to every individual. But of this city and constitution there must have been some citizens before man, who might be justly called citizens of a mighty city, having received the greatest imaginable circumference to dwell in; and having been enrolled in the largest and most perfect commonwealth. (144) And who could these have been but rational divine natures, some of them incorporeal and perceptible only by intellect, and others not destitute of bodily substance, such in fact as the stars? And he who associated with and lived among them was naturally living in a state of unmixed happiness. And being akin and nearly related to the ruler of all, inasmuch as a great deal of the divine spirit had flowed into him, he was eager both to say and to do everything which might please his father and his king, following him step by step in the paths which the virtues prepare and make plain, as those in which those souls alone are permitted to proceed who consider the attaining a likeness to God who made them as the proper end of their existence.

LI. (145) We have now then set forth the beauty of the first created man in both respects, in body and soul, if in a way much inferior to the reality, still to the extent of our power, and the best of our ability. And it cannot be but that his descendants, who all partake of his original character, must preserve some traces of their relationship to their father, though they may be but faint. And what is this relationship? (146) Every man in regard of his intellect is connected with divine reason, being an impression of, or a fragment or a ray of that blessed nature; but in regard of the structure of his body he is connected with the universal world. For he is composed of the same materials as the world, that is of earth, and water, and air and fire, each of the elements having contributed its appropriate part towards the completion of most sufficient materials, which the Creator was to take in order to fashion this visible image. (147) And, moreover, man dwells among all the things that have been just enumerated, as most appropriate places having the closest connection with himself, changing his abode, and going at different times to different places. So that one may say with the most perfect propriety that man is every kind of animal,

terrestrial, aquatic, flying, and celestial. For inasmuch as he dwells and walks upon the earth he is a terrestrial animal; but inasmuch as he often dives and swims, and sails, he is an aquatic creature. And merchants and captains of ships and purple dyers, and all those who let down their nets for oysters and fish, are a very clear proof of what is here said. Again, inasmuch as his body is raised at times above the earth and uses high paths, he may with justice be pronounced a creature who traverses the air; and, moreover, he is a celestial animal, by reason of that most important of the senses, sight; being by it brought near the sun and moon, and each of the stars, whether planets or fixed stars.

LII. (148) And with great beauty Moses has attributed the giving of names to the different animals to the first created man, for it is a work of wisdom and indicative of royal authority, and man was full of intuitive wisdom and self-taught, having been created by the grace of God, and, moreover, was a king. And it is proper for a ruler to give names to each of his subjects. And, as was very natural, the power of domination was excessive in that first-created man, whom God formed with great care and thought worthy of the second rank in the creation, making him his own viceroy and the ruler of all other creatures. Since even those who have been born so many generations afterwards, when the race is becoming weakened by reason of the long intervals of time that have elapsed since the beginning of the world, do still exert the same power over the irrational beasts, preserving as it were a spark of the dominion and power which has been handed down to them by succession from their first ancestor.

(149) Accordingly, Moses says, that "God brought all the animals to man, wishing to see what names he would give to each." Not because he knew that he had formed in mortal man a rational nature capable of moving of its own accord, in order that he might be free from all participation in vice. But he was now trying him as a master might try his pupil, stirring up the disposition which he had implanted in him; and moreover exciting him to a contemplation of his own works, that he might extemporise them names which should not be inappropriate nor unbecoming, but which should well and clearly display the peculiar qualities of the different subjects. (150) For as the rational nature was as yet uncorrupted in the soul, and as no weakness, or disease, or affliction had as yet come upon it, man having most pure and perfect perceptions of bodies and of things, devised names for them with great felicity and correctness of judgment, forming very admirable opinions as to the qualities which they displayed, so that their natures were at once perceived and correctly described by him. And he was so excellent in all good things that he speedily arrived at the very perfection of human happiness.

LIII. (151) But since nothing in creation lasts for ever, but all mortal things are liable to inevitable changes and alterations, it was unavoidable that the first man should also undergo some disaster. And the beginning of his life being liable to reproach, was his wife. For, as long as he was single, he resembled, as to his creation, both the world and God; and he represented in his soul the characteristics of the nature of each, I do not mean all of them, but such as a mortal constitution was capable of admitting. But when woman also was created, man perceiving a closely connected figure and a kindred formation to his own, rejoiced at the sight, and approached her and embraced her. (152) And she, in like manner, beholding a creature greatly resembling herself, rejoiced also, and addressed him in reply with due modesty. And love being

engendered, and, as it were, uniting two separate portions of one animal into one body, adapted them to each other, implanting in each of them a desire of connection with the other with a view to the generation of a being similar to themselves. And this desire caused likewise pleasure to their bodies, which is the beginning of iniquities and transgressions, and it is owing to this that men have exchanged their previously immortal and happy existence for one which is mortal and full of misfortune.

LIV. (153) But while man was still living a solitary life, and before woman was created, the history relates that a paradise was planted by God in no respect resembling the parks which are seen among men now. For parks of our day are only lifeless woods, full of all kinds of trees, some evergreen with a view to the undisturbed delectation of the sight; others budding and germinating in the spring season, and producing fruit, some eatable by men, and sufficient, not only for the necessary support of nature as food, but also for the superfluous enjoyment of luxurious life; and some not eatable by men, but of necessity bestowed upon the beasts. But in the paradise, made by God, all the plants were endowed in the souls and reason, producing for their fruit the different virtues, and, moreover, imperishable wisdom and prudence, by which honourable and dishonourable things are distinguished from one another, and also a life free from disease, and exempt from corruption, and all other qualities corresponding to these already mentioned. (154) And these statements appear to me to be dictated by a philosophy which is symbolical rather than strictly accurate. For no trees of life or of knowledge have ever at any previous time appeared upon the earth, nor is it likely that any will appear hereafter. But I rather conceive that Moses was speaking in an allegorical spirit, intending by his paradise to intimate the dominant character of the soul, which is full of innumerable opinions as this figurative paradise was of trees. And by the tree of life he was shadowing out the greatest of the virtues—namely, piety towards the gods, by means of which the soul is made immortal; and by the tree which had the knowledge of good and evil, he was intimating that wisdom and moderation, by means of which things, contrary in their nature to one another, are distinguished.

LV. (155) Therefore, having laid down these to be boundaries as it were in the soul, God then, like a judge, began to consider to which side men would be most inclined by nature. And when he saw that the disposition of man had a tendency to wickedness, and was but little inclined to holiness or piety, by which qualities an immortal life is secured, he drove them forth as was very natural, and banished him from paradise; giving no hope of any subsequent restoration to his soul which had sinned in such a desperate and irremediable manner. Since even the opportunity of deceit was blameable in no slight degree, which I must not pass over in this place.

(156) It is said that the old poisonous and earthborn reptile, the serpent, uttered the voice of a man. And he on one occasion coming to the wife of the first created man, reproached her with her slowness and her excessive prudence, because she delayed and hesitated to gather the fruit which was completely beautiful to look at, and exceedingly sweet to enjoy, and was, moreover, most useful as being a means by which men might be able to distinguish between good and evil. And she, without any inquiry, prompted by an unstable and rash mind, acquiesced in his advice, and ate of the fruit, and gave a portion of it to her husband. And this conduct suddenly changed both of them from innocence and simplicity of character to all kinds of wickedness; at which the

Father of all was indignant. For their actions deserved his anger, inasmuch as they, passing by the tree of eternal life, the tree which might have endowed them with perfection of virtue, and by means of which they might have enjoyed a long and happy life, preferred a brief and mortal (I will not call it life, but) time full of unhappiness; and, accordingly, he appointed them such punishment as was befitting.

LVI. (157) And these things are not mere fabulous inventions, in which the race of poets and sophists delights, but are rather types shadowing forth some allegorical truth, according to some mystical explanation. And any one who follows a reasonable train of conjecture, will say with great propriety, that the aforesaid serpent is the symbol of pleasure, because in the first place he is destitute of feet, and crawls on his belly with his face downwards. In the second place, because he uses lumps of clay for food. Thirdly, because he bears poison in his teeth, by which it is his nature to kill those who are bitten by him. (158) And the man devoted to pleasure is free from none of the aforementioned evils; for it is with difficulty that he can raise his head, being weighed down and dragged down, since intemperance trips him up and keeps him down. And he feeds, not on heavenly food, which wisdom offers to contemplative men by means of discourses and opinions; but on that which is put forth by the earth in the varying seasons of the year, from which arise drunkenness and voracity, and licentiousness, breaking through and inflaming the appetites of the belly, and enslaving them in subjection to gluttony, by which they strengthen the impetuous passions, the seat of which is beneath the belly; and make them break forth. And they lick up the result of the labours of cooks and tavern-keepers; and at times some of them in ecstasy with the flavour of the delicious food, moves about his head and reaches forward, being desirous to participate in the sight. And when he sees an expensively furnished table, he throws himself bodily upon the delicacies which are abundantly prepared, and devotes himself to them, wishing to be filled with them all together, and so to depart, having no other end in view than that he should allow nothing of such a sumptuous preparation to be wasted. Owing to which conduct, he too, carries about poison in his teeth, no less than the serpent does; (159) for his teeth are the ministers and servants of his insatiability, cutting up and smoothing everything which has a reference to eating, and committing them, in the first place to the tongue, which decides upon, and distinguishes between the various flavours, and, subsequently, to the larynx. But immoderate indulgence in eating is naturally a poisonous and deadly habit, inasmuch as what is so devoured is not capable of digestion, in consequence of the quantity of additional food which is heaped in on the top of it, and arrives before what was previously eaten is converted into juice.

(160) And the serpent is said to have uttered a human voice, because pleasure employs innumerable champions and defenders who take care to advocate its interests, and who dare to assert that the power over everything, both small and great, does of right belong to it without any exception whatever.

LVII. (161) Now, the first approaches of the male to the female have a pleasure in them which brings on other pleasures also, and it is through this pleasure that the formation and generation of children is carried on. And what is generated by it appears to be attached to nothing rather than to it, since they rejoice in pleasure, and are impatient at pain, which is its contrary. On

which account even the infant when first brought forth cries, being as it seems in pain at the cold. For coming forth on a sudden into the air from a very warm, and indeed, hot region namely, the womb, in which it has been abiding a considerable time, the air being a cold place and one to which it is wholly unaccustomed, it is alarmed, and pours forth tears as the most evident proof of its grief and of its impatience at pain. (162) For every animal, it is said, hastens to pleasure as to the cud which is most indispensable and necessary to its very existence; and, above all other animals, this is the case with man. For other animals pursue pleasure only in taste and in the acts of generation; but man aims at it by means of his other senses also, devoting himself to whatever sights or sounds can impart pleasure to his eyes or ears. (163) And many other things are said in the way of praise of this inclination, especially that it is one most peculiar and kindred to all animals.

LVIII. But what has been already said is sufficient to show what the reasons were on account of which the serpent appears to have uttered a human voice. And it is on this account that Moses appears to me in the particular laws also which he issued in the respect to animals, deciding what were proper to be eaten, and what were not, to have given especial praise to the animal called the serpent fighter. This is a reptile with jointed legs above its feet, by which it is able to leap and to raise itself on high, in the same manner as the tribe of locusts. (164) For the serpent fighter appears to me to be no other than temperance expressed under a symbolical figure, waging an interminable and unrelenting warfare against intemperance and pleasure. For temperance especially embraces economy and frugality, and pares down the necessities to a small number, preferring a life of austerity and dignity. But intemperance is devoted to extravagance and superfluity, which are the causes of luxury and effeminacy to both soul and body, and to which it is owing that in the opinion of wise men life is but a faulty thing, and more miserable than death.

LIX. (165) But its juggleries and deceits pleasure does not venture to bring directly to the man, but first offers them to the woman, and by her means to the man; acting in a very natural and sagacious manner. For in human beings the mind occupies the rank of the man, and the sensations that of the woman. And pleasure joins itself to and associates itself with the sensations first of all, and then by their means cajoles also the mind, which is the dominant part. For, after each of the senses have been subjected to the charms of pleasure, and has learnt to delight in what is offered to it, the sight being fascinated by varieties of colours and shapes, the hearing by harmonious sounds, the taste by the sweetness of flowers, and the smell by the delicious fragrance of the odours which are brought before it, these all having received these offerings, like handmaids, bring them to the mind as their master, leading with them persuasion as an advocate, to warn it against rejecting any of them whatever. And the mind being immediately caught by the bait, becomes a subject instead of a ruler, and a slave instead of a master, and an exile instead of a citizen, and a mortal instead of an immortal. (166) For we must altogether not be ignorant that pleasure, being like a courtesan or mistress, is eager to meet with a lover, and seeks for panders in order by their means to catch a lover. And the sensations are her panders, and conciliate love to her, and she employing them as baits, easily brings the mind into subjection to her. And the sensations conveying within the mind the things which have been seen externally, explain and display the forms of each of them, setting their seal upon a similar affection. For the mind is like wax, and receives the impressions of appearances through the

sensations, by means of which it makes itself master of the body, which of itself it would not be able to do, as I have already said.

LX. (167) And those who have previously become the slaves of pleasure immediately receive the wages of this miserable and incurable passion. For the woman having received vehement pains, partly in her travail, and partly such as are a rapid succession of agonies during the other portions of her life, and especially with reference to the bringing forth and bringing up of her children, to their diseases and their health, to their good or evil fortune, to an extent that utterly deprives her of her freedom and subjects her to the dominion of the man who is her companion, finds it unavoidable to obey all his commands. And the man in his turn endures toils and labours, and continual sweats, in order to the providing of himself with necessaries, and he also bears the deprivation of all those spontaneous good things which the earth was originally taught to produce without requiring the skill of the farmer, and he is subjected to a state in which he lives in incessant labour, for the purpose of seeking for food and means of subsistence, in order to avoid perishing by hunger.

(168) For I think that as the sun and the moon do continually give light, ever since they were originally commanded to do so at the time of the original creation of the universe, and as they constantly obey the divine injunction, for the sake of no other reason but because evil and disobedience are banished to a distance far from the boundaries of heaven: so in the same way would the fertile and productive regions of the earth yield an immense abundance in the various seasons of the year, without any skill or co-operation on the part of the husbandman. But at present the ever-flowing fountains of the graces of God have been checked, from the time when wickedness began to increase faster than the virtues, in order that they might not be supplying men who were unworthy to be benefited by them. (169) Therefore, the race of mankind, if it had met with strict and befitting justice, must have been utterly destroyed, because of its ingratitude to God its benefactor and its Saviour. But God, being merciful by nature, took pity upon them, and moderated their punishment. And he permitted the race to continue to exist, but he no longer gave them food as he had done before from ready prepared stores, lest if they were under the dominion of his evils, satiety and idleness, they should become unruly and insolent.

LXI. (170) Such is the life of those who originally were men of innocence and simplicity, and also of those who have come to prefer vice to virtue, from whom one ought to keep aloof. And in his before mentioned account of the creation of the world, Moses teaches us also many other things, and especially five most beautiful lessons which are superior to all others. In the first place, for the sake of convicting the atheists, he teaches us that the Deity has a real being and existence. Now, of the atheists, some have only doubted of the existence of God, stating it to be an uncertain thing; but others, who are more audacious, have taken courage, and asserted positively that there is no such thing; but this is affirmed only by men who have darkened the truth with fabulous inventions.

(171) In the second place he teaches us that God is one; having reference here to the assertors of the polytheistic doctrine; men who do not blush to transfer that worst of evil constitutions, ochlocracy, from earth to heaven.

Thirdly, he teaches, as has been already related, that the world was created; by this lesson refuting those who think that it is uncreated and eternal, and who thus attribute no glory to God.

In the fourth place we learn that the world also which was thus created is one, since also the Creator is one, and he, making his creation to resemble himself in its singleness, employed all existing essence in the creation of the universe. For it would not have been complete if it had not been made and composed of all parts which were likewise whole and complete. For there are some persons who believe that there are many worlds, and some who even fancy that they are boundless in extent, being themselves inexperienced and ignorant of the truth of those things of which it is desirable to have a correct knowledge.

The fifth lesson that Moses teaches us is, that God exerts his providence for the benefit of the world. (172) For it follows of necessity that the Creator must always care for that which he has created, just as parents do also care for their children. And he who has learnt this not more by hearing it than by his own understanding, and has impressed on his own soul these marvellous facts which are the subject of so much contention—namely, that God has a being and existence, and that he who so exists is really one, and that he has created the world, and that he has created it one as has been stated, having made it like to himself in singleness; and that he exercises a continual care for that which he has created will live a happy and blessed life, stamped with the doctrines of piety and holiness.